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Important Winter Work—Feeding—Manuring—Making Composts.

NUMBER 1.

A correspondent writes: "Can you inform me how I shall make the most of my manure this winter?"

To this question we have no other direct answer at present than to say, no, we cannot; neither could any one. Before answering such a question intelligently the following information should be supplied:

1. What amount of straw, cornstalks and hay have you to feed, and to use for litter?
2. What other kinds of feed have you, such as corn, bran, roots, and other articles of that kind?
3. How many head of horses, cattle, sheep and swine do you keep, and how long do you mean to feed them before selling any portion?
4. How do you keep them? how many will be housed; and how many will be loose in the yard?
5. What facilities have you for adding to barn yard manure by means of peat, muck, or other earthy matters?
6. Have you any means of keeping the liquid manure separate, or of saving it in any way?
7. Can you in any way protect the accumulated manure of the stables, the cow house, the sheep fold and the piggery from the effects of the weather or the washing drainage of rains?

Now, Mr. Correspondent, can you give intelligent answers to all these queries? When you do, direct information will be supplied to suit your particular case. Meanwhile, we have a few general remarks to make upon the important subject of saving manure, which is one of the highest importance, and at this season should be attended to as a department of the work of the farm worthy of the utmost care the farmer can bestow upon it.

As manure is at present managed on most farms, at least one half of the yield of the animals is totally lost; and the same proportion of the most fertilizing matter of the remaining half is wasted away by the exposure to which it is subjected before being applied to the land. The usual practice is to shake up

the loose straw beds of the horses and the housed cattle in the morning of each day, and then to shovel, either out of the door, or through a window in the side of the stable, the solid excrements which have accumulated over night. If through the windows, each pile is left to be rained on, and to be soaked with the drippings from the eaves until it is carted away in the spring, if it may then be thought best to take them away. If the dung is shoveled into the barnyard, it is generally submitted to the treading of the cattle which may be loose in the yard. This would be beneficial, if it were not that it is entirely unprotected from the water which falls from the surrounding buildings, and which is seldom conducted out of the yard, by means of eave troughs and spouts. The rain accumulates, if it cannot get out of the yard, and soaks out of the manure all its soluble salts. If, as is usual, there be a channel for the water to run off, it takes with it the very best of the manure, as may be seen by the dark brown color which the manure water has assumed. The treading of the young animals aids in making the heap of straw and excrementitious matter, which are spread over the surface of the barnyard more retentive and more solid, but the trampling of the animals in such wet mucky substance all day long, is not very beneficial to them, and can hardly be urged as promoting their growth. Even where such a yard is kept in the very best manner, by constantly spreading over it quantities of dry straw either for bedding or as a portion of the daily food of the stock, great waste must necessarily accrue. To diminish this waste ought therefore, to be one of the chief cares of the farmer at this season.

What is the amount of food consumed by a horse of ordinary size; and how much of this food is voided and how much used up by the animal for his support are questions of some importance to those who would economize every particle of fertilizing matter produced on their farms. When the amount of manure made by one horse is known, then it is easy to calculate how much each of the same kind of animals on the same farm will yield, and the crop of manure may be as easily calculated as to amount of yield as any other crop. As we proceed with this article, which will not be concluded in this number, we hope to be able to give a fair and correct idea of this important production, and also of its value, and its intimate connection with the consumption of food upon the farm.

It is calculated by THAER that a moderate sized working horse ought to have about eight quarts of oats and seven pounds of hay per day during the year. VEIT, a German writer of much eminence on experimental agriculture, is of opinion that a horse weighing about 1100 pounds needs to sustain himself without loss, 2½ lbs of good hay for every 100 pounds of weight, and consequently 30 lbs per day or

its equivalent is necessary for a horse of that size. In feeding horses one pound of oats is reckoned equal to two pounds of timothy hay, therefore if we feed to horses eight pounds of oats, each should get besides fourteen pounds of hay. Our oats are reckoned equal to one pound per quart, or 32 pounds per bushel. Besides this a horse uses for litter from three to five pounds daily of straw. Boussingault fed his horses at his farm at Bechelbronn, 33 pounds of hay per day or its equivalent in oats or other grain and cut straw. His horses weighed 1070 to 1100 pounds each.

On farms in this State the horses usually weigh from 900 to 1100 pounds; and they are usually fed when not at heavy work, eight quarts of oats and as much hay as they can eat, say an armful or a forkful, or a rackful at a time. We have never yet met a farmer, who could tell how many pounds of hay per day his horses consumed, we have calculated it at from ten to fourteen pounds per day. With about five pounds of straw each day for litter.

From these data therefore the amount of food consumed by a single horse may be easily calculated for the seven severe winter months, beginning with November 1, and ending with the last of May, or 212 days. In the winter season horses seldom work over eight hours per day, and when at heavy drawing or other labor, it is usual to give three feeds per day of oats or at the rate of 12 quarts. The rack is kept full of hay, and during the night it is emptied. In the morning it is filled, but the horse being given his oats, does not have time to consume much hay either then or in the middle of the day. We think therefore that ten pounds of hay is a liberal allowance with twelve quarts of oats. The nutritive proportions of oats as compared with the best meadow hay, is as 60 to 100, according to Boussingault; 50 according to Fresenius. Petri makes it 71 to 100. Von Thaer 86 to 100. Pabst 60 to 100; and Schweitzer 37½ to 100. The ratio given by Boussingault is most in accordance with the results of actual practice in feeding. This would therefore be feeding a horse at the rate of thirty pounds of timothy hay per day. For the 212 days therefore a horse of medium size would consume if fed well and worked every day, 6360 pounds of hay; or, if fed at the rate 12 pounds of hay and eight quarts of oats for sixty days of the winter season, or while doing but little work; and at the rate of twelve quarts of oats and ten pounds of hay during the remaining 152 days, the total or amount consumed would be of 2240 pounds or about a ton and a quarter of hay, and of oats 72 bushels. The money value of this assuming the articles to be worth market price minus the cost of marketing, would be as follows.

1½ tons of hay at \$10 per ton	\$12 50
72 bushels of oats at 37½ cts. per bush.	27 00
Total	39 50
Deduct cost of marketing	2 50

Money cost of keeping a single horse for 212 days in winter. 37 00

Or at the rate of about 17½ cents per day. This will vary as the market price of hay and oats fluctuates. But we think it a pretty correct estimate, and where it is wrong, let our practical men furnish us with some data more reliable.

We have now given the amount of food consumed by a single horse during the season when he would be kept principally in the stable. To this may be added half a ton of straw for bedding and litter, and the whole weight of the material consumed by the horse will be hay 2250 lbs, oats 2304 lbs, litter 1000 lbs, or altogether 5544 pounds, or at the rate of 26 pounds per day. From this how much is the manure manufactured?

According to a German writer of much eminence, VERT, who has paid great attention to this subject, a horse will produce 2 pounds of manure for each pound of dry food and litter supplied him. Both Thaer and Boussingault agree that this estimate is nearly correct. But during the time that a horse is not in the stable, of course there is a loss of his excrement. In the winter season the time that a horse is employed on working days is equal to one third and of the whole winter season, there would certainly be 60 days when he could not be out of the stable save to go to the horse-trough to drink. The manure made by a single horse during the winter months would therefore be as follows:

1½ days at work at 32 pounds per day.....	7894 lbs
deduct the third loss while at work.....	3601 "
	5293
60 days while kept without work.....	3129

Total manure produced by one horse in winter.....8323 lbs

According to Block, another experimenter on this subject, the ratio is that a horse converts,

100 lbs of hay into	172 lbs of fresh dung,
100 lbs of oats into	204 do do
100 lbs of grass into	43 do do

These measures or proportions all confirm the basis on which our calculations are made. Now in addition to the amount of dry food consumed by a horse, the water taken as drink, according to Boussingault is at the rate of 35 pounds per day, and we find that the amount of urine voided per diem is set down at 21 pounds. Boussingault, makes it but 3 pounds, and has been followed in this by most agricultural writers. But, three pounds is only the the amount passed by a man per day. We think that an animal weighing 1000 to 1100 pounds will ordinarily pass about 20 or 21 pounds per day. Now amongst our farmers there is no provision to save the urine, except so much of it as the litter or long straw, with which the horse is supplied, may absorb. A liberal estimate would not make it over one third. There is therefore to be deducted from the total production as above given at the rate of fourteen pounds per day for the sixty whole days in which the horse is in the stable, and two thirds of fourteen to be deducted for the 152 labor days; which altogether would make 2239 pounds to be taken from the 8323 pounds given as the whole

fresh production of a single animal, leaving it 6084 pounds. This manure if thoroughly taken care of and prevented from fermenting too rapidly, would at the end of the season be reduced in bulk and weight about one third. Or, we may reasonably expect that where manure receives the ordinary care given to it by our best farmers, a horse will make about two tons of good fair serviceable dung. But the same animal if all provisions were made to save from loss his liquid and solid excrements, while in the yard or stable, might be counted on to make at least three tons.

On a farm where there are 100 to 120 acres of cleared land, there are usually kept at least 4 head of working horses, the year round. According to the above data, these four animals would consume from the first of November until the first day of June five tons of hay, 288 bushels of oats, and two tons of straw. This would be the products of 3 acres of grass land, and 6 acres of oats, of a money value of \$148. In return there would 152 days labor of two teams, to be reckoned at \$1.00 for each team without the service of the man, and twelve tons of manure if it had all been saved; but as it is usually cared for, there would probably be eight tons, or about sixteen fair two horse wagon loads. There would therefore hardly be enough of manure from nine acres to give a good thorough coating to one acre of land.

We shall not pursue this subject farther at present. In subsequent numbers, the manure producing qualities of cattle, sheep, hogs, will be severally taken up, and, generally with reference to the number kept on a medium sized farm, say 100 to 150 acres of cleared land. If any of our readers can aid us by their experience, or can make any suggestions on a subject so important as the economy of making and applying manure, we shall be pleased to have their aid. But let them bear in mind that *facts* and not speculation are what we want.

Agricultural Notes in Ohio and Michigan.

In the latest number of the *Journal of Agriculture and the Transactions of the Highland and Agricultural Society of Scotland*, we find a very interesting series of notes upon the agriculture of Ohio and Michigan by Mr. R. Russell, of Kilwhiss, Scotland. During the autumn of 1854, we had the pleasure of becoming acquainted with Mr. Russell, while he staid in Detroit. He had just come from Ohio and the National Fair on his route westward, and in company with Mr. J. C. Holmes, he went to Ypsilanti, Ann Arbor, Kalamazoo and Schoolcraft, visiting the farms of Mr. David Uhl and A. Y. Moore. Mr. Russell is evidently a gentleman possessing an intimate practical and scientific knowledge of the agriculture of his own country, and the various papers which he has furnished since his return home to the *Journal of Agriculture* containing his

observations upon Canada and the several States through which he passed, indicate him to be a calm, shrewd observer, biassed by attachment to no particular theory or opinion, and apparently able to judge, without prejudice, of the farming operations which he witnessed, giving due weight to the difficulties with which agriculture here has to contend when compared with that to which he had been accustomed. The length of the article compels us to divide it; the conclusion, which refers more particularly to Michigan, will appear in the January number.

"Left Cincinnati, Ohio, on the afternoon of 24th October, for Springfield, eighty miles to the northwest, where the National Agricultural Society held its annual exhibition. The country in the neighborhood is moderately fertile. The soil consists for the most part of a sandy loam, dyed into a dark hazel tinge, which is peculiar to all those soils upon which oak and hickory are the predominating trees in the forests. The subsoil is usually gravelly, but often mixed with clay. Indian corn and wheat are the principal crops which are cultivated; a few sheds for drying tobacco were seen as we passed along. The soil is genial to the growth of clovers, and it produces good pastures when seeded with those grasses that are natural to the land.

"Springfield contains a population of 7000 inhabitants, and is in a very flourishing condition. Agriculturists were attending this meeting from all parts of the Union. The Secretary had traveled from Boston, a distance of nine hundred miles, by railway; and some of the officials almost as far from the south and from the west. Some of the judges had come from Canada. The greatest number, however, were from the neighboring States of Kentucky, Indiana, Illinois, and Michigan.

"There was nothing shown but cattle, and the great majority were short-horns, for which the soil and climate of southern Ohio and Kentucky seem admirably adapted. I was quite astonished at the general excellence of the stock. Among the hundred and fifty short-horns that were exhibited, there were few animals that could be considered second-rate. I am not sure if the short horned stock was so uniformly good at Windsor [Eng.] in 1851 though there might be some better animals. One bull had been lately imported from England, and had cost the owners six thousand dollars. The animals were kept beautifully clean, for great care was bestowed in having them properly groomed. Shortly before a fine ox was led into the ring, I saw three negroes rubbing him down most vigorously with their hands, to put the last polish upon his sleek skin. From the appearance of the animals on the show-grounds, as well as of the large herds that I saw in the meadows in southern Ohio, I am led to believe that the soil and climate are well fitted for maintaining the shape and qualities for which this breed is distinguished. Here there is no evidence that it is deteriorating; but the extent of land capable of yielding fine pasture is comparatively restricted in Canada and the United States.

"During the few days that I remained at Springfield, I had many opportunities of conversing with the farmers of Kentucky, and obtaining a knowledge of their systems of husbandry. Kentucky is a slave state, and the size of the farms on the best lands is larger than they are in Ohio. The common size of the farms in the best grazing districts is from 300 to

400 acres, but many are as large as 1000. There is not much variation in the mode of cropping. One gentleman whom I met possessed 360 acres, of which 100 were under thinly timbered woods that yield excellent pasture. The 260 acres of arable land were allowed to remain for six years under grass, and then, after being cropped for another six years with wheat or Indian corn, sown out again for pasturing. Six hands were required to manage this extent and attend to the stock, and eight horses were required for cultivating it.

"I was informed that a field, after it had been cropped with Indian corn for eight years, would fill up in four years with the fine blue grass which is so valuable for pasture in Kentucky, although no seeds were sown. So natural is this grass to the soil, that at the end of this period it would extirpate all the weeds that infest the cultivated fields. But by sowing grass-seeds with the last grain-crop, fine pasture would be got the succeeding year. The Kentucky limestone soils, that are so genial to the growth of the finer grasses, are, comparatively speaking, like the same class of soils in Ireland, inexhaustible.

"Rearing mules for the southern markets is carried on to a great extent in Kentucky and Tennessee. The gentleman who occupied the farm above described usually grazed above forty of these animals during the warmer months. In winter it cost 16s. 8d. (four dollars) a-month for keeping a mule, as it is allowed as much Indian corn or oats as it can consume. An ox on grass is kept for one dollar a-month. Though the Ohio is often frozen over in winter, the cattle are not stabled; the wood-pastures, however, afford good shelter from the high winds. They are fed upon hay and Indian corn: the latter is given to them as it is cut from the fields. One would be very apt to suppose that great loss would arise from the imperfect manner in which cattle would masticate the unground grain of Indian corn; but a lot of pigs are usually wintered with the cattle, and act in the character of a save-all. Some of the pasture-fields, too, are often allowed to grow after the middle of July, and they thus afford good winter grazing.

"That the natural produce of wheat is much smaller in the fine grazing lands in Kentucky than in the country immediately to the south and north of Lakes Erie and Ontario, was the testimony of all the farmers that I conversed with. The same lands which yielded on an average 75 bushels of Indian corn, would not yield more than 18 bushels of wheat. In southern Ohio and Kentucky, Indian corn obtains those conditions of climate which are favorable to its producing its maximum yield, but which are not equally well suited for bringing to maturity large crops of wheat.

"Clover and timothy succeed very well in Kentucky: the latter is in great repute for hay. But when the land is allowed to remain in pasture, the blue grass occupies the ground and puts all the others out. Large quantities of hay are made in the western parts of the State, pressed into bales, and sent down the Mississippi to New Orleans; for this is a scarce and high-priced article in all the States south of Tennessee.

"I could soon readily distinguish the Kentuckians from the northern farmers. Some of the former that I saw here were noble specimens of humanity. Exemption from severe manual labor for several generations, it would seem, has not been without its influence on the Anglo-Saxon constitution. All that the Kentuckian usually wants is the fine fresh and ruddy complexion to make him every inch an Eng-

lish country gentleman. Had Buffon seen the produce of Kentucky at the exhibition at Springfield, he would have qualified his theory of the degenerating influences of the climate of North America upon men and animals. But the northern farmers, on the other hand, are much smaller men, with a vast amount of activity and energy. All who labor with their hands upon the land in America lose that full habit of body which even our agricultural laborers have at home. A difference in the dietary may have something to do with the matter, but the great extremes of the climate, conjoined with field-work, are the principal elements. It struck me that both the men and women among the wealthy commercial classes in the Northern States were more robust than among the agricultural.

"The ground is seldom manured for crops of any kind in Kentucky or Ohio. As yet, labor appears to be worth more to be applied in cultivating a larger area of land than in collecting and applying manure to a smaller one. However, as the most of the stock is fed out of doors, there is little manure made about the yards. The principal maize-producing districts in Ohio are along the margins of the Scioto and Miami rivers, which are too rich for wheat. General Bierce, in his address to the agriculturists assembled at the county fair at Medina, said that "sandy land is preferable for wheat over clay soils." This sounds rather curiously to a Scotch farmer. The General gave a chemical reason for it, which I need not repeat; but the circumstance shows how much climate may alter our ideas respecting the characters of the soils which are best suited for certain crops.

"A large marquee was erected within the grounds, to accommodate one thousand persons at the banquet which terminated the proceedings. About this number of ladies and gentlemen sat down to a cold luncheon. Before the guests entered, they marched in procession around the grounds, headed by a band of music. Both ends of the erection were only closed to the height of four feet from the ground. The sides also had an open space all round, so that any one on the outside could easily see and hear what was going on within, if he chose to approach; and very soon the external company became much larger than the internal. After dinner all were put upon a footing of equality. Some of the speakers addressed themselves quite as much to those who were outside as to the guests proper. It was not to be expected that the topics discussed at such a meeting would be confined to agriculture. After a short speech from the president on the success of the national show of stock—which seemed to absolve those who followed from all allusion to the question—each speaker launched out on his own particular hobby. There was one flowery and really eloquent speech from a Kentuckian, in which he took occasion to deprecate the "fanatical agitation" of the Northern States against the "peculiar institution." Some followed on the other side, and spoke with as much vehemence. A governor of one of the neighboring States, mounting on the form, and turning round, chiefly addressed himself to those without, on the necessity of keeping the able men at home to manage local affairs, and to send all the "blockheads" to Washington. This was a very ridiculous and inflated speech, and I was rather surprised to find its author, whom I afterwards met, a shrewd, sensible and practical man. A speech on the importance of protection to native industry called forth one, on the Reciprocity Treaty, by a Cana-

dian, which, for wit and humor, with all the ornaments of the stump-orator, put the other speakers entirely into the shade. The crowd that were without were remarkably well dressed. One, who was close at my back, made the remark to his companion that a certain speaker, whose volubility was extraordinary, "would be hard to get down." The entertainment broke up about sunset, all seeming highly pleased with themselves and each other, notwithstanding the ardour of some of the speakers.

"The weather was most delightful all the time that I was at Springfield. It was what is called the "Indian Summer." The mornings were cool, with fog in the low grounds, but during the day the sky was without a cloud. The heat was considerable in the afternoons, the thermometer rising to 66°. An almost complete stillness prevailed during the day, for there was scarcely as much air stirring as to rustle the rapidly fading leaves in the oak grove where the show was held.

"A few of the spirited inhabitants of Springfield had guaranteed the premiums offered by the National Society. They expected to get out of this transaction by the money drawn for admission to the show-grounds; but the State fair had been held about a fortnight previous in a neighboring town, when far greater attractions were held out to the general public than seeing well bred cattle; for, besides the premiums that were offered for all kinds of agricultural implements and produce, some were also given to the ladies who could ride and manage horses most gracefully. This novelty was the means of attracting immense crowds from all parts of the State. So no wonder the Springfield cattle exhibition was unpopular; and the receipts fell so far short of the expenditure, as to leave the managers to pay £1200 out of their own pockets.

"I lodged in a boarding-house at Springfield that was under the direction of a gentleman and his two sisters. Some of the apartments were newly erected and in an unfinished state. It was overcrowded, and the guests soon saw that the staff of help on this occasion was far short of the required number; so every one had to help himself in many things, and even to clean his own boots. I was rather pleased with the article which rendered this operation almost as gentlemanly a one as the brushing of a coat. A long handled brush, with a smaller round one on its upper side for applying the blacking, enabled any one to put a capital polish on his boots with little trouble, and without taking them off. The landlord went about at his ease, after serving us at the different meals, but his hands were otherwise pretty full, for he was likewise a banker and an editor of a newspaper.

"Some of the orators who had not got their breath fully exhausted at the banquet, addressed the crowd from the windows of the hotel in the evening, on various political subjects. The curious thing to me was, that men who were really sensible in private conversation, should launch out in such a strain of exaggeration as was usual in their speeches; for the most of those with whom I talked upon the matter, look upon the whole as a piece of foolish acting. But it would seem, however, that this style is best calculated to gain the ear of the majority in the western parts of the United States. No wonder, then, that the more rational and enlightened use such efforts to educate the masses.

"Left Springfield on the forenoon of the 27th for Sandusky, on Lake Erie, a distance of 134 miles. A level but slightly undulating country all the way,

much of it cropped with wheat and Indian corn alternately; but near Sandusky, wheat and clover, as in Canada West, the common rotation. The forest still covered two-thirds of the country through which we passed. Oak and beech were the common trees, the leaves of which were still on, but the colours were fading fast. The immediate vicinity of Sandusky is flat and marshy; but a little to the south of this town, the limestone gravels and sands afford very productive wheat soils, more so than in any other part of the State.

The population of Sandusky is about 12,000, of whom one-half are of German extraction. The formation here is limestone, belonging to the upper Silurian. It is covered in the neighborhood of the lake with several feet of a peaty material, which on being removed exposes a surface beautifully smoothed and polished by the action of those agents that have transported to the southwards the vast accumulations of sand and gravel which lie scattered over certain regions of Ohio. The floors of the cellars of the houses in Sandusky consist of this finely polished surface. A travelling companion sought out a friend of his in town, by whom we were treated to quail, woodcock, black bass, and white fish for supper, which were all particularly excellent. These kinds of fish swarm in the lake, and are caught in great numbers. Took the steamer at night for Detroit, a distance of seventy miles, and at daylight found ourselves along the wharf of this great depot of produce. On the opposite, or Canadian side is the town of Windsor, which is the terminus of the Great Western Railway, that traverses Upper Canada from Niagara, by Hamilton. The Michigan Central Railway connects Detroit with Chicago. Hundreds of emigrants pass Detroit every day in summer for the west, and large numbers are constantly seen hanging about the station, waiting for the departure of trains. In general they have a most emaciated appearance; and no wonder, after having suffered a long sea voyage and great discomfort since landing. The piles of trunks and luggage of all sorts lying about on the wharf, gave me some idea of the vast human stream that was flowing to the westward. The railway company have a river frontage of half a mile, which was entirely covered with goods of one description or other. The river here is three-fourths of a mile in breadth, and flows at the rate of three miles an hour. It is of a fine green color, as clear as crystal, and used for drinking without filtering.

"Detroit has now upwards of 40,000 inhabitants. The houses are mostly built of brick and the streets are wide and handsome. The number of fine villas in the suburbs, as well as the numerous handsome carriages rolling about in the evenings, indicate a population rapidly advancing in wealth and luxury. Three Presbyterian churches were in course of erection, one at a cost of \$60,000, and another at 40,000. From the appearance of the streets on Sundays, this is a more church-going people than the inhabitants of Cincinnati. In the afternoon, however, I met several persons coming into town carrying large quantities of game.

Michigan is by no means so fertile as Ohio, though it contains a large extent of land capable of raising winter wheat. Its surface is very flat, little of it being more than 150 feet above the level of the lakes, which surround it on three sides. It forms a part of that vast plateau which is drained by the Ohio and Mississippi, and which stretches through

the southern parts of Canada West. Indeed, the soil in southern Michigan is very similar in character to the wheat soils of Canada West; I should say, however, rather lighter in general. The soil of northern Michigan is stiff and cold, and does not tempt emigrants to settle upon it. A large extent of land along the shores of Lake Huron is very swampy; and wherever dampness exists, there is more accumulation of vegetable matter, which requires to be somewhat wasted by cropping before wheat can be raised upon it, even after the land is drained; for, until the virgin richness of the soil is in some measure rubbed off, autumn wheat generally suffers greatly from rust or mildew. I have no doubt that much of Michigan, as well as Ohio, will produce better crops of wheat after the fertility of the soil is somewhat reduced by cropping with Indian corn, oats, or barley.

In company of Mr. Holmes, secretary of Michigan State Agricultural Society, I left Detroit by the railway on the 30th October, for Ypsilanti, twenty-seven miles due west. The banks of the Detroit were originally settled by the French, and, as in Lower Canada, the farms consist of long narrow ribbon-like stripes which extend from the river. The French mode of settlement is not perpetuating itself in Michigan, for the descendants of the French are amalgamating with the Americans. The country to the westward of Detroit is flat, and much of it in need of draining, but it was well timbered, and clearings were going on very rapidly along the line of railway. At Ypsilanti the country is more rolling, and the soil is mostly sandy and gravelly.

On Breeding.

The choice of a sire and dam is a point of the utmost consequence in breeding horses, (or, indeed, any other animal,) as the offspring will be found, in almost every instance, to inherit the qualities of its parents: peculiarity of form and construction is inherent and descends from generation to generation. Hence the necessary attention to those niceties which breeders are often apt to forget. Nor is it sufficient that one of the parents be good, and the other indifferent; for the perfections of the sire may be lost through the deficiencies of the mare, and vice versa.

In the selection of a stallion many things should be observed. The height should depend on the occupation the foal is destined to fill. The legs should be particularly examined, and disease should pervade no part of the system. Fat, heavy horses, with thick legs, and coarse, unseemly heads, should always be avoided. Horses should be free from specks on the eye—partial or total blindness. Temper is an essential point, for vice is sometimes hereditary. Stallions that cover too many mares in a season, in the latter period produce weak offspring.

As regards the mare, it is well known that the dam contributes more to the integrity of the offspring than the sire. It is essential that she be in full possession of her natural strength and powers: the vigor of the constitution determines much in favor of the foal. It is a great error to suppose, that a mare that has once been good, and capable of great exertion, should, when old, and no longer fitted for work, produce offspring equally efficient as when in her prime: the foal will certainly inherit some of the weakness of the present nature and broken down constitution. Mares should never be put to the stallion until they have arrived at maturity, which takes place about the fifth year. Mares

are bred from earlier, but it is a bad practice, for strength and beauty are absent; and thus not only is the dam rendered inefficient sooner than in one that is allowed to come to maturity, but the foal can never be expected to be either healthy or strong in constitution. The period of going with foal is eleven months: after the sixth month, great care and gentleness should be exercised towards them; moderate exercise is essential; hard work in harness, over bad roads, is likely to produce abortion; and mares that have once aborted are very liable (if the same causes are in operation) to a recurrence of the same.

The proper time for copulation is when there is a whitish fluid from the vagina. She neighs frequently, and exhibits great desire for the horse: when she has conceived, she shows no further desire, and the discharge from the vagina stops.

Some writers recommend the mare to be put to the stallion early after foaling: this is improper, for the simple reason that the dam has to nourish two, viz: the foal and the embryo; this is excessively weakening, and liable to weaken one or the other.

Disproportionate copulations are also bad, as a large horse and a small mare: the size of the horse should be produced by gentle graduations, and this is evidently a better way to arrive at beauty as well as strength.

The best method of preserving the breed and making improvements, is to make selections of the best on both sides. Much judgment and circumspection is necessary at all times in crossing the breed; and many errors arise in consequence of a want of knowledge in the breeders.

When the period of foaling draws nigh, the mare should be separated from the other horses. Having foaled, turn her into a fine pasture, where there is a barn. The foal may be weaned at six months. If the foal dies, or is taken away from the dam, humanity would suggest the propriety of a few weeks' rest, to enable the animal to recover from the effects of parturition.—*Am. Vet. Journal.*

Export of British Cattle to the United States.

During the past week there were shipped from Liverpool for New York, on board the *Antartic*, Capt. Stouffer, a most valuable cargo of horses, cattle, sheep and pigs. Prominent among the cattle were a young cow called *Darlington Sixth*, by a son of *Grand Duke*, bought at Mr. Sainsbury's sale, in August, for 300 guineas; and a very fine heifer, *Marie Louisa*, by Mr. Booth's *Hopewell*, purchased at a recent sale in Ireland. There were also three first-class heifers from the unrivalled herd of Col. Towneley, of Towneley-hall, in Lancashire.—*Buttercup Second*, by *Horatio*, from *Rosette*; *Miss Butterfly*, by *Master Butterfly*, from *Rosa*; and *Pearlette*, by *Falcon*, from *Ringle*. The price given for these three heifers was 1,000 guineas, although only just turned one year old. Two of them are descended on the dam's side from the same family as the famous bull, *Master Butterfly*, which animal was sold for Australia, in July, at 1,200 guineas. *Miss Butterfly* was the first heifer calf by him. *Pearlette* is descended from Mr. Booth's *Bracelet*, one of the most celebrated prize cows of her day; and for the dam of this heifer Mr. Douglass recently gave Mr. Towneley 500 guineas. These animals have been purchased by Mr. Strafford, of London, for Mr. Thomas, of New York, one of the most enterprising breeders of that country. There were also con-

signed for this gentleman some very fine Southdown sheep, purchased at the Hengrave sale, as well as some of the best Berkshire and Essex pigs that we ever saw leave the port of Liverpool. The Berkshires were from the famed stocks of Mr. Hower and Mr. Overman; the Essex pigs were bred by Mr. Crisp, and included the prize boar at Chelmsford, as well as some young sows, also shown there. With the above there were shipped some splendid Southdown sheep from Mr. Lagar's flock, as well as the shearling ram, bought at his sale for 80 guineas. These are for R. A. Alexander, of Kentucky, a gentleman whose name stands high as a great purchaser of our best animals, and who, in a recent visit to this country, bought the celebrated horse *Scythian*, by *Orlando*, winner of the Derby (by *Touchstone*), one of the best stallions this country ever produced, whose pedigree and performances are well known to the sporting world. He was winner of the following prizes: *Newmarket Stakes*, £350; *Dee Stakes*, *Chester*, £750; *Goodwood Stakes*, £539. This valuable horse, for which Mr. Alexander gave 1,500 guineas, accompanied the above cattle, under the charge of Mr. Beck, and is consigned through the Messrs. Tattersall.—*Liverpool Times.*

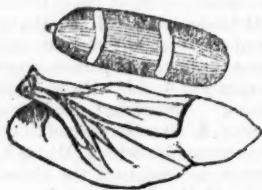
On the Study of Insects.

In the November number of the *Medical Independent*, there is the second of a series of articles upon the "structure and functions of insects." These articles are written by one of the editors of that Journal, Dr. HENRY GOADBY, a fellow of the Linnean Society of Great Britain, and one of the most able naturalists and certainly one of the very best microscopical observers there is in the country. As an entomologist, Dr. Goadby has no superior. The able and excellent papers on various subjects connected with the growth and development of the lowest order of organized forms, whether vegetable or animal, which have been published by him, are contributions to the science of natural history, in its most abstruse departments, which tend to give a high character to the journal of which he is the editor. These papers are not only attracting attention, by their ability and the learning of which they bear evidence, but they are also having a tendency to encourage a desire to study and to observe amongst the younger men of the medical profession in this state, as they serve to direct attention to the subjects which are close at hand, and also illustrate in a scientific manner how important the study of natural history is to the student who would desire to become eminent, and to approach a perfect knowledge of the sciences connected immediately with his profession. We have understood that as soon as the Faculty of the Agricultural College should be ready to be organized, that it was the design of the Board to secure the services of Dr. Goadby as professor of Natural History. This appointment would certainly be one which ought command the approbation of the agricultural community and would add to the character of the institution. For the doctor is fully as industrious in his efforts to

communicate knowledge as he is indefatigable and enthusiastic in the pursuit of science. But to return to the article upon insects, which is copyrighted, and which with others that is to follow we copy from the Independent with the consent of the author:

The characters which distinguish an insect from every other animal in existence are few, simple, and definite. The body is primarily divided, as before mentioned, into three distinct parts—head, chest, and abdomen; in addition to these characteristics, there are always found *three pair of legs*—neither more nor less.

COLEOPTERA,
koleos—pteron.



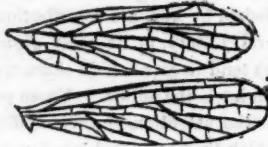
HEMIPTERA,
emius—pteron.



LEPIDOPTERA,
lepis—pteron.



NEUROPTERA,
neuron—pteron.



HYMENOPTERA,
hymen—pteron.



DIPTERA,
dis—pteron.



APTERA—*a—pteron*, WINGLESS.

Thus, if the creature under examination, no matter what its size, should chance to possess *four pair of legs*, it is not an insect, but belongs to the class Arachnida. With four pairs of legs, the body will invariably be found divided into *only two portions*—the head and chest being soldered together, constituting the Cephalo-thorax, and the remainder being the abdomen or body. The class Arachnida, contains the Spiders, Scorpions, and Mites; by the

rule above given, it follows, therefore, that the *Acarus Scabiei* is not an *insect*, but a *Mite*. But the specimen may chance to have *five* or *even six pair of legs* with the body still possessing but two divisions, is this an Arachnid? By no means; such an animal belongs to the highest class amongst the articulate sub-kingdoms—the Crustacea.

It is impossible to understand anything of this science without the aid of a system of classification.

The first classification of insects of any consequence, was that proposed by Linnaeus. He grouped together his specimens by the simple character of the structure of the wings; hence this has been called the *Alary* or wing system. We offer the following illustration of it:

The true CRUSTACEOUS beetles formed an order which he denominated COLEOPTERA, from *koleos*, a sheath, and *pteron*, a wing; which refers to the wing-cases, or elytra with which all these insects are provided.

The second order contained the tree bugs, and is called HEMIPTERA, from *emius*, half, and *pteron*, wing, in allusion to the upper pair of organs which are only partly wing-covers, one half of which is crustaceous, the remainder half membranous.

The third order is known as LEPIDOPTERA, from *lepis*, a scale, and *pteron* a wing, this order includes all the butterflies and moths.

We next have the NEUROPTERA, from *neuron*, a nerve, and *pteron*. This name alludes to the great, and unusual ramification of delicate bones through the organs of flight which were called *nervures* by the older entomologists.

Fifthly we have the order HYMENOPTERA, from *hymen*, a membrane, and *pteron*. Here we have four wings, all of them equally membranous; the order contains, bees, wasps, ichneumon flies, and their allies.

Sixthly, we have the DIPTERA, from *dis*, two, and *pteron*. This order includes all the insects with only two wings.

Seventhly, and lastly, the order APTERA, from *a*, without, and *pteron*, wing. This order was a perfect chaos of confusion; it contained in fact every insect, and animals not insects, that could find no place elsewhere. Crustaceans, Arachnidans, Myriopods, &c., were crowded into this order.

The preparation, of which we have given a copy, was made upwards of thirty years ago, the intention being to display the Linnean orders *at one view* by the oxy-hydrogen microscope. We submit a magnified view of it as the best mode of explaining the principles on which this classification is founded.

A careful examination of the figures will satisfy the reader that this system had much to recommend it to general adoption; a beetle no matter *what its size*, has always a pair of dense crustaceous covers to protect its wings, which, when unfolded for the purpose of flight are *always much larger than the case that covers them*, and *shaped as represented* in the figure.

So too, the semi-crustaceous superior organ together with the peculiar shaped wing, is equally characteristic of many, *but not all*, the tree bugs.

Butterflies and moths are easily known by the scales which cover their entire bodies, and which come off so plentifully on our fingers and thumbs when we touch them.

The beautiful lace-winged flies, with their light, and gauzy organs of flight are conspicuous.

The bees, wasps, and other *hymenopterous* insects are easily defined by the inequality of size in their wings, no less than the peculiar manner in which *the under wing fits into the superior one*.

The two winged flies admit of no doubt.

The greatest difficulty however, has always been with the Linnean *apterous* order, of which we shall have more to say hereafter.

All these Linnean characters are so very obvious—so easily accessible, they may be detected whilst an insect is on the wing—that we still regard it as a most useful, and desirable system, one that may well supply the want of all those persons whose knowledge of insects is limited, and who are not engaged in forming a collection.

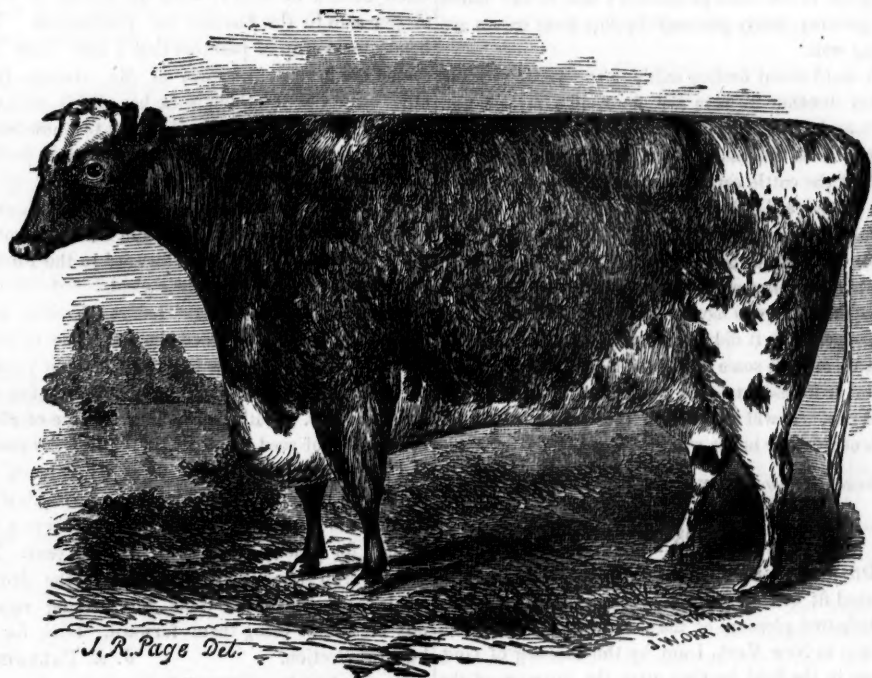
The number of insects with which we are acquainted in modern times, compared to those known by the great Swedish naturalist have rendered other systems—more complicated and perfect—necessary.

Thus Fabricius, a pupil of Linneus found his master's classification unsuited to the entomological wants of his day, and proposed one based upon the structure of the mouth.

It is unnecessary, because foreign to our purpose, to describe the various systems proposed, or to point out the advantages belonging to them respectively; suffice it to say, that the modern classification of insects embraces the principles, combined, of the authorities mentioned, and others.

From the structure of the wing, the mouth, and the number of joints in the feet, insects are now classified and arranged.

In all the *Articulata* the skeleton is placed on the external surface of the body. In insects it is horny, sometimes hard and brittle as in the beetles, at other times soft and elastic, as displayed usually in the larva of *Lepidoptera*, and in the perfect insects among the *Diptera*.



SCOTTISH BLUE BELL,

A Shorthorn Cow, the property of R. G. Corwin, of Lebanon, Ohio. Winner of the first premium at the Ohio State Fair, held at Cleveland last September.

Wintering Calves—Feeding Cattle.

EDITOR FARMER:—I have often thought I would write and give some of my ideas about farming and the many things connected with it; but not being used to writing for the public, I have kept silent until now. I have been a reader of the *Farmer* for about three years, and have received a great deal of valuable instruction from it, by the communications of my brother farmers and others, for which I am much indebted to them.

Knowing that, to make the *Farmer* useful and interesting, the articles written for it should be ap-

propriate to the season, and as winter is coming on, I thought I would give my rule for wintering calves—a thing that is a great dread to some farmers. Many calves are lost in wintering, and some that do live through, want lifting up in the spring, for a month or two; and I would rather have a calf that has not seen a winter at all, than such ones. Those who will follow my rule in wintering will not lose any, nor will they have to lift them up in the spring—they will come out with their heads up.

Keep your calves in a warm place, and give them plenty of good hay and water, and to each calf about

a quart of meal a day. Begin with the meal when you do with hay, and not miss a day, and my word for it, you will find it will pay; and when your calves come to be three or four years old, you will find that your grain has been well sold. The best kind of meal that I have tried is corn and oats ground together half and half.

The best rule to know when your calves are doing well is to measure the length of their horns in the fall, when you commence feeding hay, and then when you turn them out to grass in the spring, measure them again. If they have been thriving you will find that the horns have grown two inches or over. I was asked the other day why I wanted to grow such large horns? I will answer: you cannot grow large horns without having the bone and muscle grow in the same proportion; and if the horns are growing nicely you may be sure your calves are doing well.

A word about feeding cattle in the yard, as many of my brother farmers are poor, like myself, and have to do so: My plan is to have a good, substantial rack and manger combined, and made strong so that the cattle cannot tear it to pieces. I have one in my yard. It costs but a trifle, as any kind of a wood butcher can make one in a few days. I made the attempt to give a model to our county fair, but my timbers were so large that but few could tell what the thing was meant for! It looked more like a hog pen than it did like a cattle rack and manger. But there were some who were ingenious enough to discover its use, and said it was the best plan they ever saw. It will pay well in the saving of fodder in wet weather in the winter.

ANSON C. BRIGGS.

Ocola, Livingston Co., Nov. 1856.

Jottings Again.

DEAR FRIEND JOHNSTONE:—After a rather protracted fit of sickness which destroyed most of the anticipated pleasure of the visit to my children and friends in New York, I am, by the blessing of God, again in the field, looking after the interests of the *Michigan Farmer*. My disappointment was considerable at not being able to attend the Chautauque County Fair, held at Westfield, N. Y., on Wednesday and Thursday, the 10th and 11 of September ult., and visit the flocks and herds of Mr. Patterson, but so it was—I was confined to my bed. I was informed, however, that the drouth of the season had been so severe that their show was small, and the dust so smothering at the time as to destroy most of the enjoyment of my travels. I will say that the counties that I visited, viz: Chautauque, Cattaraugus and Erie, had suffered severely by drouth, and while I was there, lost much by fire—large quantities of hay in stacks, and old outbuildings, some barns, two or three dwellings, and one saw mill destroyed came

within my knowledge. That portion of Ohio from the east line to Cleveland, as far as I could see from the cars, appeared almost crisped. But that little neck of Pa. that lies on the lake, especially the west part of Elk Creek and west, seemed to have fared better. I saw excellent good corn, potatoes and apples in Springfield. From Cleveland up I came in the night, and cannot speak of the route. I noticed frequent fires on the south side of the road from Toledo to this place. Here in the valley of the Raisin, the farmers have not suffered so much by drouth as in other parts. Corn and potatoes are good, and apples abundant and delicious. Mr. A. Harrison, of this place, has just shown me his field of corn, now nearly secured in shecks, which he calculates is the premium crop of the State. He says when husked he shall forward the number of bushels per acre to the *Farmer* for publication. The handsomest crop of potatoes that I have seen this season are here on the farm of Mr. George Hall. One beauty of the thing is, he has all his varieties, each by itself, consequently it is easy to know which sort yields the best; and which is the most profitable. He has one kind that the tops are yet green, that he thinks are the most hardy. While looking at them he gave me the name, but I have forgotten it. I hope when dug he will forward to the *Farmer* the different varieties and their yield.

Deerfield, Oct. 23.—Mr. George Kedzie, near this village, sows turnip seed the last time of cultivating his corn—has now practiced it three years—thinks he adds to his income thereby twenty-five dollars each year. With the trifling expense of about two pounds of seed at about six shillings per pound, and one day's sowing twelve acres, \$1.50 more. After taking his corn and fodder off he turns his stock on and lets them do their own pulling, except a few bushels for house use and seed the next year. The present crop is backward by reason of the drouth, but looks thrifty, and I think the soaking rain of last night will bring them forward. Look for me home at election.

J. A. BALDWIN.

RECLAMATION OF WASTE LANDS.—A writer in the *London Gardener's Chronicle*, gives the following account of the method pursued in reclaiming waste lands:—The first process was to make the ground quite dry by stone drains. The next operation, either by trenching, plowing, and a subsoil plow following the same furrow, so as to completely stir and mix the soil 18 inches deep, and thus break the hard crust or pan; then the field went through a course of cropping, that is, one or two crops of oats and turnips, the last well limed, say 4 tons per acre, at a cost of 20s. per ton; then a good dressing applied; from 25 to upwards of 34 tons of Swedes per statute acre were the publicly attested yield, prizes having been awarded right and left by different local clubs. Afterwards, with perfect care in obtaining perfectly clean ground and a fine tilth, about 25s. to 30s. worth of grass seed per acre, sown mostly without a grain crop, and times of seeding, May to August; the

ground rolled before and after sowing with a light stone roller. In November a heavy stone roller drawn over all the pastures, and this repeated about the middle of March, if weather is moderately moist—if not, wait until it is. I let my improved grass fields last from 12th of May to November 8th, when, according to my custom, they will remain idle to next May. The hammer fixed the rent, the occupiers seem highly pleased with the condition of their stock the grass being abundant.

Sale of Short-horns by the Messrs. Brooks.

MR. EDITOR.—As every reader of the *Farmer* is interested in whatever tends to improve, or develop, the agricultural interests of our State, I send you for publication the following account of a public sale of short-horn cattle, by the Messrs. A. S. and M. L. Brooks, of Novi, Oakland County. The sale took place on the 12th instant on the farm of A. S. Brooks where the following stock were disposed of, viz:

COWS.

Red Rose, 7 years old, Chas. Leonard,.....	\$75 00
Susannah and Calf, D. Whitfield, Pontiac,...	155 00
White Rose, 2 years old, Wm. Whitfield,...	130 00
Pale Red, 7 years old, Chas. Leonard,.....	95 00
Beauty, 13 years old, Mr. Hamblin,.....	56 00
Spot, 4 years old, Fred. Bradley,.....	96 00
Beauty, 3 years old, Wm. Whitfield,.....	150 00
Roselle, 4 years old, bid in at \$80, sold after afterwards at private sale to David Gage,	82 50
1 Grade Heifer, 3 years old, James Bradley,	36 00

BULLS.

Rover, calf, George Bradley,.....	36 00
Pilot, calf, H. B. Johns,.....	35 00
Honest John, 1 year old, Gideon Scott,....	63 60
Rover, calf, David Gage,.....	50 60
Archer, calf, Samuel Starkweather,.....	52 50
Duke, 2 years old, withdrawn at,.....	300 00
Yonondio, 8 years old, withdrawn at,.....	200 00
1 pair of 2 years old steers, W. W. Henderson,	101 00

The day was fair and the attendance was pretty good, and although the prices obtained were not equal to the quality of the stock, yet a public sale of such stock being rather an experiment in this part of the country, it was very encouraging on the whole, as the snug sum of \$1,214 was the result of the sale.

Owing to the dryness of the season much of the stock was thin in flesh, but to say merely that it was good in quality would not be doing justice; many of the animals were fine and showed much care and skill in breeding. The two years old bull "Duke" attracted a great deal of attention, he is a fine specimen of what a short-horn ought to be, and the price at which he was withdrawn shows that his owner appreciates his worth; his weight is 1730 lbs. Yonondio is too well known to stock-breeders to need any comment. Although the prices obtained for the bull calves were low, they would compare favorably with any in the State equally fed, and will be a great benefit to the neighborhoods to which they have gone.

The Messrs. Brooks have lately added to their herds, at great expense, some eight or ten animals

of the best blood in the United States, and I am in hopes that in future a public sale of short-horns will be neither an experiment nor a novelty in old Oakland.

WM. HUNTER.

November 19, 1856.

[We are much obliged to Mr. Hunter for his communication, setting out the results of this sale of short-horns. It is the first attempt at a sale of the kind in this State, and we are gratified to see that it has resulted so favorably. Yonondio is well known, and we think had the Messrs. Brooks cared to part with him that they would have advertised. He is certainly worth more than \$200 to any one wanting a full-blood animal of as good a strain as has yet been brought into Michigan.—Ed].

An Important Question.

EDITOR MICHIGAN FARMER:

Dear Sir:—I wish through the columns of the *Farmer*, to tell my brother farmers what I have been doing this fall, and how I have done it; then I wish to inquire what to do in order to make my work profitable. (Necessity is the mother of invention; therefore I hold that experience is the father of economy.) After proper draining and clearing, I have plowed thirty acres of marsh, which have been covered with willow, wild rose, and other brush natural to uncultivated marshes. I commenced plowing with the iron beam plow, with the coulter attached; I found that the coulter was of no use; it only tended to clog and hinder the progress of the plowing; I removed the coulter and put on the common coulter point, which worked well. Where the sod is stiff a piece of steel riveted on to the wing of the point is of great advantage in turning the furrow; this piece of steel to work well, should run about four inches back of the common point.

I now have my marsh plowed. My next question is: what grains is my marsh best adapted to raise? The soil is a black muck, from one to four feet in depth, with a clay bottom. It is well rotted and very mellow.

Yours Truly,

ROBERT BRADFORD.

Sandstone, Nov. 17, 1856.

[We have in hand some remarks to submit on this subject in the January number. We shall be pleased, however, to hear from all who have tested this very important subject. Let us have the benefit of their experience, whether successful or not. What is the best and most profitable first crop to put on a piece of drained or ditched swamp? That is the question, who will answer it? During the past year in an article showing how Mr. Samuel Linden, of Canton, had drained a piece of wet, marshy land, we suggested a treatment to which we commend the writer, as giving some notion of what such land needs.]

Seed Corn and Corn Shellers—A Hint to the Makers.

MR. EDITOR,—I do not know that you will thank a raw hand for writing a few lines for that valuable paper the *Michigan Farmer*. But what I have to write is something which concerns every farmer. It is this: the necessity of saving good seed corn. I am no prophet, but I believe there will be more trouble in getting seed-corn to grow next spring, than there was last spring, that is if we have a hard winter. My reasons for this are that corn is greener this year than common, and it will not become sufficiently dry before cold weather. I will give the manner and way that I save my seed-corn. When I am unloading, if I see a good seed ear I throw it out, and continue to do so until I have finished unloading, I take and put them in some place where they will dry, and I seldom have any trouble about having my corn grow, I never save an ear on which kernels are loose, or one that is green, on which always save the largest and soundest ears. I think farmers would do well to be over particular in saving their seed-corn, and I do not believe they will be sorry for the trouble. Enough of this. But with your consent, Mr. Editor, I wish to say a word in regard to corn shellers, and in doing so I shall find fault with most all of them. The trouble with them is they have no balance wheel, and if they have, they are not large enough. Those who manufacture them do not know of this difficulty, and as they sell, they suppose they are all right. If they would place a large wheel on every machine, they would sell better and give better satisfaction. Hoping you will pardon these few remarks and if you think them worthy of a place in your paper, you will insert them.

A READER.

[We are at all times pleased to hear from practical men. Their observations are of the highest value. We called attention in a previous number to the propriety of saving seed corn in good condition for use next spring. In the September number, a method of shelling corn is pointed out which is considered superior to the use of corn-shellors. We hope to hear from our friend "Reader" again.—ED

Cashmere Goats.

These animals were introduced into the United States from the East, in the year 1849, by Dr. J. B. Davis, of South Carolina, from whom I purchased, in the year 1853, the entire flock of pure bred females, with the exception of the one owned by Col. Wade Hampton, of South Carolina; one sold by Dr. Davis to Mr. Davenport, of Virginia, and one to Mr. Osborne, of New York. The flock now consists of twenty-five head, excluding the three pure bred females above enumerated, and several bucks owned by gentlemen in Tennessee, Georgia

and South Carolina, who are breeding grades by crossing on the common goat.

A great many opinions having been expressed, not only as to the particular variety to which these animals belong, but also as to their value, and adaptation to the different sections of the Union, they are now presented to the United States Agricultural Society, in order to elicit an opinion from the distinguished stock-breeders and members present.

That they are not the "Thibet Shawl Goat," is proven by their total dissimilarity to a specimen of that breed in possession of the subscriber; the latter variety having only an under-coating of a few ounces—which portion of its fleece is alone valuable.

Works on Natural Science show that they are not the common Angora Goat of the Province of that name, in Asiatic Turkey, as that animal is of varied color, with a fleece of indifferent value.

They have become known as "Cashmere Goats," from the pure white color and fineness of their fleeces, and their undoubted Eastern origin, having been characterized by America's celebrated naturalist, the Rev. Jno. Bachman, D. D., as the "most valuable variety that can be introduced into our country."

The animals on exhibition consist of

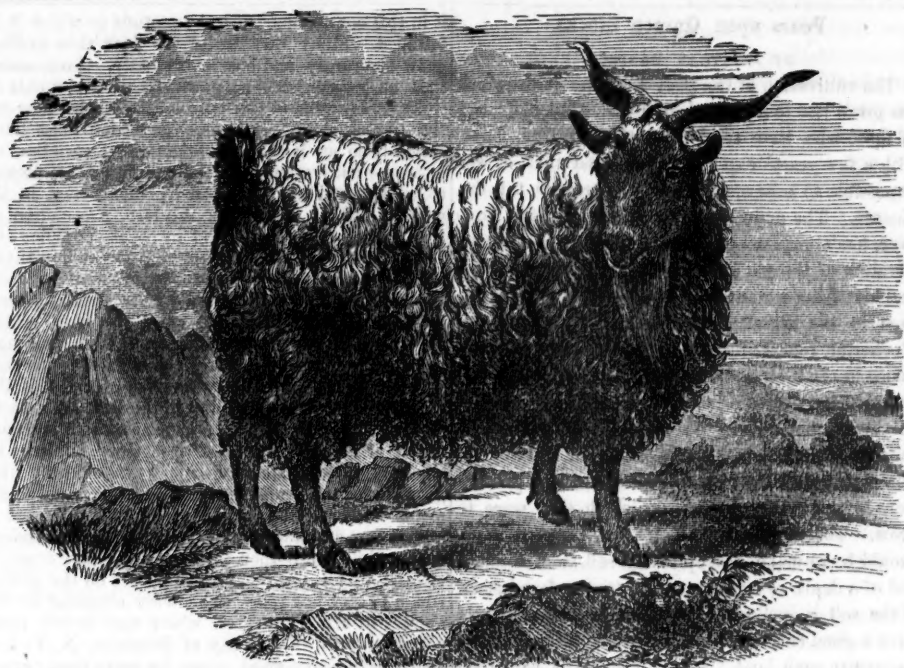
- No. 1. A pure bred buck kid, yeaned 20th Feb. last.
- No. 2. Do. do. do. 18th May do.
- No. 3. Do. do. do. 20th do do.
- No. 4. A buck kid, yeaned 23d May last, one-eighth Cashmere, one-eighth Common, showing the third cross of the Cashmere on the native goats of the country.
- No. 5. A buck kid, yeaned 23d May last, three-fourths Cashmere, one-fourth Common, showing the second cross.
- No. 6. A yearling ewe, half blood Cashmere, showing the first cross. The mother of this specimen being a common blue goat.

The fleeces of the matured bucks weigh from six to seven pounds. Ewes yield from three to four pounds. The flesh of the crosses is superior to most mutton, tender and delicious, making them a desirable acquisition to our food producing animals.

The ease with which they are kept, living as they do on weeds, briars, browse, and other coarse herbage, fits them for many portions of our country where sheep could not be sustained to advantage; whilst their ability and disposition to defend themselves from the attacks of dogs, evidence a value peculiar to this race of animals.

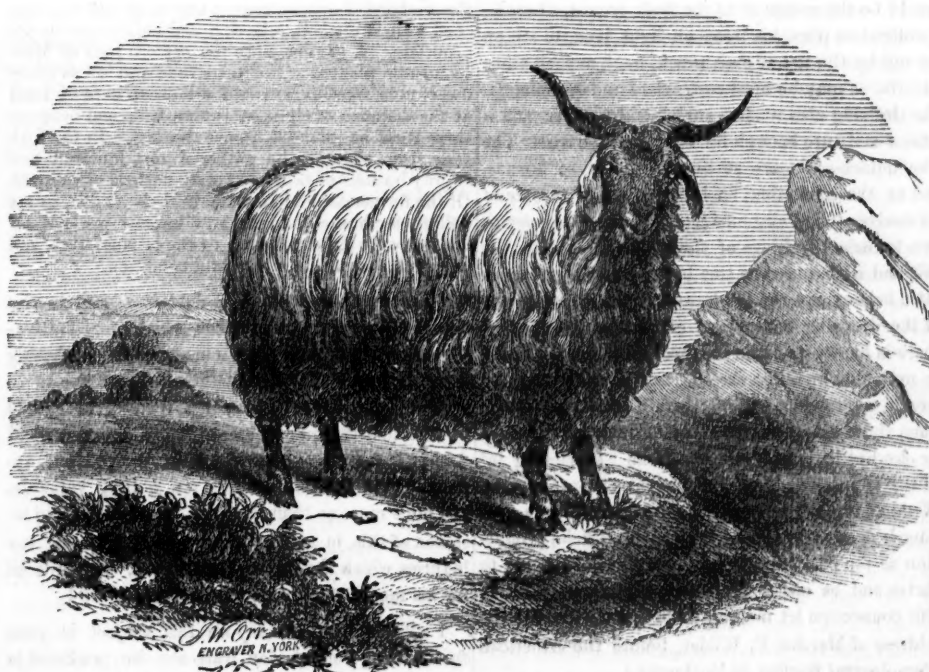
They are free from all diseases to which sheep are liable, hardy and prolific; and experience has proven that they readily adapt themselves to all portions of the United States.

RICHARD PETERS, Atlanta, Georgia.



MALE CASHMERE GOAT,

The property of Richard Peters, of Atlanta, Georgia, imported during the year 1849, from Turkey, in Asia, by J. B. Davis, M. D., of South Carolina. Live weight, 155 lbs.—weight of yearly fleece, 7 lbs.



FEMALE CASHMERE GOAT,

The property of Richard Peters, of Atlanta, Georgia, imported during the year 1849, from Turkey, in Asia, by J. B. Davis, M. D., of South Carolina. Live weight, 102 lbs.—weight of yearly fleece, 4 1/2 lbs.

Pears upon Quince Stocks.

BY JONATHAN HAUTOBY.

The cultivation of the pear upon the quince stock has given rise to a great deal of discussion, and many of those who have tried pears thus grafted, have, with a few years' experience, declared that it was impossible to raise and preserve the trees in this dry climate. The main difficulty, in my opinion however, has always arisen from a want of proper preparation of the soil in which the trees were planted, and also from a want of proper knowledge and courage in the art of shortening in. Mr. Barry, of Rochester, repeatedly has avowed his entire confidence in the system. Most of those who have attempted to cultivate pears upon quince stocks in this State, have given no attention to them after they were planted, and besides have not had any acquaintance with the wants of such artificial productions in preparing the soil in which they were to grow. The very first point, by way of preparation, should be to make a deep loamy soil, well drained, and of a depth of from twenty to twenty-four inches. If the soil is inclined to sand or gravel, it should have a good coating of clay, which is just as good as manure to such land. If clay cannot be had, then give it a good dressing of peat muck, which has been exposed to the action of the air for several months previous to being applied to the land. Draining, even on gravel, is important to an orchard, as it should be the endeavor of the fruit grower, where he is obliged to plant his trees on light land, to stiffen the soil by the use of clay, muck, marl, or such other material as may be most convenient and economical. The draining also renders such a soil warmer, and it retains moisture enough for the use of the trees. The quince-roots are so numerous and so fibrous, and at the same time so little disposed to extend themselves to any distance from the tree, that one or two luxuriant fruitings of the tree soon exhaust the soil, and when once the tree begins to decay, there is little help except the spade, and a new tree in place of the decaying one. Yet, of all our cultivators, there is hardly one who has ever paid any attention to mulching or tilling the soil, and thus keeping the tree in a growing and producing condition at the same time. Another great point totally neglected, or else but little understood, is the "shortening in" of the young wood, so as to prevent over-production. Without the soil is properly prepared, and the pruning is done systematically, no such artificial production as the pear on the quince can be expected to thrive and be either profitable or ornamental. In this connection let me quote the following from the address of Marshal P. Wilder, before the American Pomological Society of Rochester:

"My experience has so often been solicited by private communication, in relation to the *pear upon the quince stock*, that I deem it proper to introduce

it in this connection, with the reasons on which it is founded. Many varieties of the pear thus grafted grow vigorously, and bear abundantly. I am aware that an impression has prevailed in the minds of some unfavorable to the cultivation of the pear on the quince stock, an impression which must have arisen from an injudicious selection of varieties, or improper cultivation. In this opinion I am happy to know that I am sustained by Mr. Barry, in his address before the North Western Association of Fruit Growers in Iowa, and by other pomologists. Pears upon the quince should be planted in a luxuriant deep soil, and be abundantly supplied with nutriment and good cultivation. They should always be planted deep enough to cover the place where they were grafted, so that the point of junction may be three or four inches below the surface. The pear will then frequently form roots independently of the quince, and thus we combine in the tree, both early fruiting from the quince, and the strength and longevity of the pear stock. For instance, of trees of the same variety, standing side by side in my own grounds for ten years, and enjoying the same treatment, those on the quince stock have attained a larger size, and have borne for seven years abundant crops, while those upon the pear stock have scarcely yielded a fruit. We have also others on the quince which twenty-five years since were obtained at the nursery of Mr. Parmenter, where now is the most populous part of the city of Brooklyn, N. Y. and which have borne good crops for more than twenty years, and are still productive and healthy.

"The introduction and cultivation of the pear upon the quince has been a great blessing, I entertain no doubt, especially in gardens, and in the suburbs of large towns and cities. And as to its adaptation to the orchard, I see no reason why it should not succeed well, if the soil, selection, and cultivation be appropriate. A gentleman in the eastern part of Massachusetts planted in the years 1848 and '49 as many dwarf pear trees as he could set on an acre of land at the distance of eight by twelve feet, and between these rows he planted quince bushes. In the fifth year from planting he gathered one hundred and twenty bushels of pears and sixty bushels of quinces. Of the former he sold seventy bushels at five to six dollars per bushel, and he now informs me that he has lost only three per cent. of the original trees, and the remainder are in a healthful condition."

There are also two other points in regard to the cultivation of pears on quinces, which every cultivator must bear in mind, and one is when purchasing his trees, he should select sorts which are known to succeed well on the quince; and second, he should be sure that the quince stocks are of the improved Angers, and not the common indigenous variety. Fruits of fine qualities are getting valuable, and none more so than the pear. I noticed as an instance of this, in an eastern paper, that among the luxuries which the forger, Huntingdon, had ordered for his meals, were pears at a dollar a-piece!

I will have more to say on this subject in your forthcoming volume, for fruit can be produced in this State of the finest quality, and there are the best of markets waiting to snap at all we grow for the next twenty-five years.

Horticultural Department.

S. B. NOBLE, EDITOR.

A Chapter on Fruits.

In consequence apparently of the severity of the winter, and unfavorableness of the spring, a large number of young trees of rare varieties which promised fruit have failed to produce.

Carolina June has borne a few very fine specimens. It gives promise of decided excellence. Very showy, medium sized, bright red, ovate. Flavor "very good," if not "best." To my taste superior to *Early Harvest*, and ripened a few days before it. Under similar circumstances they would probably ripen together. Tree a good upright grower. Should it prove a good bearer it will probably be valuable for market, as its size, appearance, and flavor, would render it very attractive.

Sine Qua Non has this year shown itself a good bearer. Fruit of fine size and great beauty, exceedingly tender, mild subacid. Ripened this year before *Early Harvest*.

Early Strawberry is a good grower, and a great bearer on old trees but younger trees bear more thinly, and, unless top grafted, appear to lack hardiness.

Porter, and the *Golden Pippin* of this region once supposed to be identical, have now borne another crop side by side, and after a careful comparison of trees and fruit, at home and at our State Fair, and sending specimens to eastern pomologists, the conclusion arrived at is, that they are distinct. Both are exceedingly fine. *Golden Pippin* is an enormous bearer; whether *Porter* will equal it in that respect is yet to be decided. The season of the former appears to be one or two weeks earlier than the latter, and, judging by the specimens that have come under my observation it will also average a little larger. The *Porter* is the stronger grower.

Fall Wine of Ohio, is but little disseminated. It is a medium sized, striped apple, and one of the finest flavored of its season—September.

Granville, is the name of a very fine, tender, juicy, mild subacid apple, pale yellow, of medium size, roundish, flattened. Have been unable to trace its origin. Tree a good grower, and fine bearer, season September and October.

Cooper has been grown here since the early settlement of the country, but only recently identified. It is a good grower forming a rather upright, finely rounded head; bears well every year. Fruit usually of large size, flattened, conical; very juicy, mild subacid, always fair; beautifully striped with pale red on a pale yellow ground. It commences to ripen and drop its fruit in the early part of September, and may be kept till December, and often till January.

St. Lawrence has borne but a single crop. It is a very beautiful fruit, with an unusually vigorous tree. Said to be a great bearer, and a profitable market fruit. It appears perfectly hardy here, and will doubtless prove valuable. Indeed, the experience of a single season here, would assign it a place among our finest flavored fruits, did not its reputation for acidity with eastern pomologists, stand in the way. Season, September and October.

Baldwin, although a strong grower, and a native of the extreme north, seems to be less hardy than many feebler southern varieties. The effects of the winter are manifest near the surface of the ground, and I do not recollect to have seen a single tree of this variety, grafted at or near that point, that has not suffered more or less severely; while topgrafted trees are entirely unscathed. It seems, however, that this is not owing to any peculiarity of our climate, as I am informed that it is liable to the same difficulty in its native region.

Esopus Spitzenburg, seems from the past winter's experience, to be also liable to the same objection as *Baldwin*.

Roxbury Russet, another New England variety, is also equally tender; nearly every root-grafted tree being either dead, or essentially injured. In such cases prevention is easier than remedy. The obvious course for that purpose is, top-grafting on healthy seedling stocks.

Hubbardston Nonsuch, has now borne. So far as I know, it is entirely new in this region. It is a large fruit, of great beauty, and of the finest flavor. It will doubtless rank here as elsewhere among the finest of its season. October to January.

Ladies' Sweeting, is a variety just in bearing here which originated at Newburgh, N. Y. It is also known among some New Jersey men as *Jersey Sweet Pippin*. So far as tested here it promises to sustain its eastern reputation. Tree of rather slender growth. Fruit of good size, tender, juicy, and unusually rich. Will probably prove far superior to *Talman Sweeting*, which has heretofore been considered our standard winter sweet apple. Although sufficiently mature for use now, it is said to keep till May.

Northern Spy, has been looked upon with suspicion by many, but the past season has established its reputation as a great bearer of fine fruit. It gives indications of a disposition to overbear, and produce scabby fruit; but not more so than several other of our finest varieties. It is altogether probable that judicious pruning, and good culture, will make it all that can be desired in that respect. Although the fruit is of large size, its habit of bearing is such, that it holds its fruits against high winds better than most other varieties; ranking in this respect with *Red Canada* and *Yellow Belflower*. The earlier crops of this variety, consisting of overgrown specimens, failed to verify its reputa-

tion as a longkeeper, but later crops of more natural growth, have kept well. It may however be fairly doubted whether its season can be prolonged till July, as stated by Mr Barry, without unusual care. With thorough cultivators, it will doubtless become a very popular market fruit.

Red Canada, or as it is usually called here, *Steele's Red Winter*, is constantly taking a deeper hold upon the confidence of our fruit growers; so much so indeed, that some individuals contemplate planting large orchards of this single variety; while it forms a larger share of the selections for new orchards, and for the re-grafting of old ones, than any other variety. It is the opinion of those who have cultivated it longest that it is the most profitable market variety of this region; as it bears heavily and constantly, while the fruit is always fair, and beautiful, of good size, and keeps well till May, and even till June, when it is sure to command a high price.

Winter Pippin is a very fine long keeping fruit, somewhat cultivated here, said to have been received under this name from the state of New York. So far as I can recollect, the fruit is large flattened conical, usually oval in its transverse circumference. Color pale yellow, with frequent diffused carmine dots where exposed to the sun; not very juicy, mild subacid. Said to keep till spring. May prove identical with some eastern variety.

Davis is a name applied to a seedling apple originating in this vicinity with a family of that name. The fruit was first brought to my notice by Mr. Jehiel Davis, by whom the original tree was planted nearly thirty years ago, and on whose farm it is still standing. The tree is a good upright grower, and usually bears moderately every year. Fruit, (from the original tree,) rather below medium; round, inclining to oblong or ovate; stem one inch long, rather stout for so small a fruit, set in a moderately deep regular cavity; calyx closed, set in a shallow plated basin; color a pale greenish yellow ground, with a dull red blush on the sunny side and a faint blush, and broken stripes of dull red, in the shade; the whole nearly over spread with a very faint, often scarcely perceivable, cinnamon colored russet, strongest about the calyx, and gradually shading out toward the stem; the whole surface interspersed with small gray dots. Flesh, yellowish white, firm, crisp, fine grained, juicy, sprightly subacid, inclining to acid till fully mature. Core, compact; small; seeds, ovate dark brown. In season it fills the hiatus between Northern Spy and Roxbury Russet on the one hand, and our earliest apples on the other. It retains its juice and freshness better than any other variety I know, as I have eaten specimens as late as the last of June, which had been kept in open vessels, in the cellar, and which were apparently as firm and fresh as when gathered.

T. T. LYON.

Plymouth, Nov. 1856

Root Grafting of Apples.

Quincy, Nov. 10, 1856.

MR. JOHNSTONE.—Sir, I hope your health is better than when I saw you last, at your home. As I am somewhat engaged in fruit growing, I have waded with intense anxiety the ravages of the past unsurpassed hard winter, on our young and flourishing orchards in this vicinity. There are a great many complaints in this vicinity about trees dying. In an orchard of two hundred trees grafted in the root, of seven years growth, I find that about twenty of them have died. Many others grafted in the same way in other orchards, have shared a similar fate. I find also that nine-tenths of all that have died around me are of the Roxbury Russet and Virginia Redstreaks. I have an orchard of seven hundred trees, all seedlings, grafted in the top, except a few which died down to the ground, and afterwards were regrafted in the root. But one of the whole number suffered, and that was grafted in the root. There are other orchards here, which prove that root-grafted trees are not so hardy as those grafted on the stem or top. With the evidence I have before me, I have come to the conclusion that seedling trees grafted in the top are the hardiest and best. In this way we get the kinds we may choose, and are not liable to be deceived by tree pedlars or nurserymen.

Yours truly, JAS. CLIZBE.

[Mr. Clizbe's remarks relative to the Roxbury Russet and the Virginia Redstreak varieties are worthy of the attention of fruit growers, and if confirmed by the experience of other fruit growers, would lead to the conclusion that these varieties are not to be relied upon in south-western Michigan and northern Indiana. It will be noted that Mr. Clizbe's experience with root grafted trees seems to coincide with that of Mr. T. T. Lyon, and is therefore valuable as testimony on a disputed question. We hope that other fruit culturists will note the utility of making their observations generally known. Here it will be seen are two important facts, namely, that two well known and popular apples are somewhat tender in a certain part of Michigan, and that root-grafted trees are more liable to injury from severe frosts than trees grafted on the top. Should these observations be confirmed by testimony from other quarters, it may be the means of saving a considerable outlay, by guarding purchasers of young trees from making improper selections for our State. Let us have the subject noted, and let us hear from others.

—ED. FARMER.]

NEW PROCESS FOR THE CULTIVATION OF THE VINE. By Persoy. Translated from the French by J. O'C. Barclay. New York, C. M. Saxton & Co.

This little work is calculated to disclose a new and more economical method of treating the grape vine than any yet known. The method may be practiced on either a large or a small scale, as the cultivator may choose. The plan seems feasible for a large production, as it is calculated to give the vine a good exposure to the light, and at the same time does not cramp the plant by too close trimming.

C. A. Peabody's New Hautbois.

Jonathan Hautboy called attention to the merits of the new strawberry grown by C. A. Peabody, of Columbus, Georgia, in the October number of the *Farmer*. Since that time we have received a very splendid colored drawing of the fruit, of the natural size, and have had it framed and hung up in our office where it can be seen by all who wish to see one of the greatest strawberries of the age. Mr. Peabody has been devoting fifteen years of his life to the growing of seedling strawberries, and claims that he has at last secured a very valuable variety. He proposes now to forward these strawberries at the rate of \$5 per dozen as soon as he can get 1,000 subscribers at that rate. Subscribers on forwarding their names and the money, will receive a colored plate of the plants and fruit and the number of dozen plants they may order will be forwarded by mail, put up in moss, and carefully enveloped in oil silk. By this method Mr. Peabody affirms they can be sent with perfect safety any distance. A description of the plant with its peculiar qualities will be found in the October number of the *Farmer*.

Asparagus.

Those who have asparagus beds, must not expect that they will take care of themselves. If a good top dressing of short stable manure has not already been dug in, we recommend that as soon as possible a compost of stable manure and marsh muck mixed with three bushels of wood ashes to every cubic yard of the compost be spread over the bed to the depth of two to three inches. When this is done, then sow two or three quarts of salt to the square rod, and it will be found that the asparagus beds will repay the owner handsomely for his trouble. The asparagus plant is greedy and exhausting, and when not supplied with manure, the young shoots come up in the spring like pipe stems, and one can hardly cut a good sized bunch from a square rod of ground. Now we might just as well have asparagus coming up in the spring with shoots like hoe handles, but the ground must be made rich in the fall. A good coating such as is recommended above, protects the plants from the winter, and even when late applied, will keep the roots growing beneath the surface, so that when the spring comes, not only are the shoots early, but when ready to cut, they are of good size, tender, and of a delicious flavor. Salt is of great use to asparagus, and the plants will bear an extraordinary dose. In its wild state, the natural habitat of the asparagus is near the sea or salt lakes and marshes. The top dressing now, even where the bed has not been thoroughly enriched before the plants were set out, will answer every purpose, and during the next season the old plants will throw out new roots near the surface, from which strong shoots will come up the next year.

The Household.

"She looketh well to the ways of her household, and eateth not the bread of idleness."—Proverbs.

EDITED BY MRS. L. B. ADAMS.

The Farmer.

A farmer sat in his easy chair,
Drawn out 'neath the maple shade,
Gazing the while on the verdant lawn,
Where his laughing children played.

'Twas the sunset hour, his work was done,
And now that his toil was o'er,
He was resting his wearied form, beneath
The old tree at the door.

His eye glanced over the spreading fields,
O'er the meadows green and fair,
And his heart was filled with gratitude,
That God had placed him there.

Kind hearts were in that happy home,
Sweet children clad and gay,
Cheered the good farmer's heart and drove
His every care away.

This was the home of happiness,
Joy's dear abiding place,
Contentment beamed in every glance,
Shone forth in every face.

Oh! give to me the farmer's life,
His toils and pleasures too,
And I will leave the town, with all
Its bustling cares to you.

Nottawa, Mich., Nov. 1856.

ETHELLE.

Ourselves.

Ourselves—permit us to drop the pompous plural for a time, and pretend to no more than we are—a single unit—I. It is well enough on ordinary occasions for a woman to adopt the custom of editors generally, and keep the potent "we" between herself and readers; but now I wish to come a little nearer, to sit down beside you, my *Farmer* household friends, and feel free to talk with you concerning our mutual interests. It is common, and very natural to us all, to feel more interest with those in the same course of life with ourselves, and more interest and confidence in those who have had experience in the things of which they write, than in those who write from theory only, or from a distant view of the life they profess to describe.

It has sometimes occurred to me during the past year, that many who read these pages, and some who were accustomed formerly to write for them, have thought, if they have not said it, that between them and myself there could be no sympathy of feeling—that their toils and pleasures in the kitchen, the pantry, the dairy and the garden, were all as a sealed book to one whose experience was bounded by the narrow limits of city life. And I have thought that this was why so few had written for the *Household*, and why one who did write gave expression to the bitter and unjust reflection that "city ladies had nothing to do but dress in silks, lounge upon a sofa with the last new novel, or display their hoops in the streets, and their delicate jeweled fingers on the piano keys." I shall not now attempt to disprove

this assertion further than to say that it could only have had its rise in total ignorance of what city life really is. My experience, at least, for the last three years, has been far enough to the reverse of this. And three years cover all of my life that has been spent within city limits. Before that, the country or a country village was always my home. My earliest recollections are of a group of log houses, of which my father's was one, on the banks of the Huron river, and which then comprised the only settlement in Washtenaw county. I remember seeing the timbers hewed and framed for the first bridge that ever spanned the Huron; and quite as well do I remember the years of privation and toil and hardships through which the pioneers struggled, before the reward of their labors began to appear in the early promise of Washtenaw to be what she now is, the pride of the State for her model farms and schools.

My first lessons in the English Reader and Morse's Geography were learned in a log school-house, and my first efforts at "helping mother" were made in our little one-roomed log house home. Perhaps it was more of a hindrance than a helping, many times, but mothers know by what patience, forbearance, and long-suffering such lessons must be taught and learned, and ours was not a mother so short-sighted to her interests and our own as to drive us from the dishpan, the ironing-table, the milking or the churning, for any untoward accident, or display of awkwardness by our unpracticed hands. She rather enforced upon us, and at the same time encouraged us in the performance of all housekeeping duties suited to our strength and age; and for this she receives what she has well merited, the gratitude of all her daughters.

After a few years, and when the early settlers began to feel that their hardest trials were past, and to enjoy a little quiet comfort in their homes and cultivated fields, a "better land" was heard of still farther to the west. The beautiful and fertile valley of the St. Joseph tempted many to a second trial of pioneer life. What an immeasurable distance it seemed from the Huron to the St. Joseph! But it was accomplished at last, over the hills and valleys of the old Chicago road, with only three nights out on the way.

Then commenced in earnest the experience of farm life, when we, the children, were old enough to participate in the labors of the house and field. But on that broad tract of burr oak wilderness there was neither house nor field till our father built the one over our heads, and then, with what aid the boys could give him, grubbed and cleared and fenced the other. What a life-wearing, back-breaking work was that old system of hand-grubbing. But father and boys worked at it steadily and faithfully till acre after acre of the tall underbrush lay subdued beneath their hands; and then what a triumph it

was to set fire to the high-piled heaps at night, when brothers, sisters, little ones and all, would gather around to help throw on the falling brands and scattered brush, and watch the crackling flames stream up into the darkness, casting their ruddy glow over the broken ground from which our next year's bread was to be harvested. And we helped to plant the corn, and to harvest it too; spending days and weeks of the hazy Indian summer among the shocks of corn, helping the boys to strip the husks from the golden ears, while father poured the full baskets into the wagon, and took them from the field to store in the great crib behind the house, for winter use.

But we, the girls, had in-door lessons to practice too. All those boys must be clothed from the products of our own wheel and loom. Labor-saving machinery was not so common then as now. Our mother had been brought up after the old-fashioned way, and was quite familiar with all the mysteries of spinning, dyeing, weaving, and making up clothing for her household, and it was her custom for years to have all this done under her own roof—much of it, indeed, by her own hands. We had no silks or jewels to display, but I remember being very proud of the smooth-pressed, home-made plaids made up into dresses and cloaks for our winter wear at the district school. We had neither piano, melodeon, guitar, nor even an accordeon, but the wheel and loom and churn instead; and we were far more familiar with the care of lambs and calves and chickens than with the heroes or heroines of any novel, old or new.

I could write you chapters, dear reader, of the experience of more than twenty years in this kind of country life; and think you that a brief residence in the city could efface it all from my mind, or check for an instant the ready sympathy that springs to meet those whom I can almost claim as kindred from having known a like experience? Not a letter comes from the country that does not seem like a friend I had known in that olden time. I only wish they would come oftener; and they would, I think, if the writers knew how widely some of them are read and copied into other journals. Here, for instance, is Amanda's letter, copied, with a very pretty compliment, into the *Pittsburgh Agriculturist*; and we could say the same of many other communications which have appeared in this department, and from it found their way into other papers; simple as they may seem to their writers, if they are only practical and truthful, they will find a response somewhere.

Since my connection with the *Farmer* I have had less time than I could have wished to devote to writing for its pages. Constant confinement to the office, attending to the books, accounts, the correspondence of our numerous agents, preparing copy for the printers, reading proof, mailing, &c., leaves me

little leisure to think, or to go abroad to seek for varieties or novelties. This department is consequently very much dependent on contributors for its interest. And now my friends, in asking you to write for it, I hope you will not look upon it as a request for you to send in long pages of something merely to fill up with; our editor says he has no waste places on his plantation to be filled up with useless articles; he allows us but a small space for our Household and door-yard, and we must therefore economise and make the most of what room we have. I trust that after this long explanation, you will not feel as though you were writing to a stranger, or to one who had no interest or sympathy with the toils and pleasures of a country life. There are a thousand things in your daily experience that it would do you good to write, and that others would be benefited by knowing. In the Household circle, wives, mothers and daughters should speak freely, instructingly, cheerfully; and we trust they will. There are some to whom we are indebted for favors during the past year, for which thanks are due, and warmly given. We hope they will still remember us with an occasional word of encouragement.

From a Little Boy.

"I am a little boy, and could not write a letter without help, if I should try, but sister will help me, and I would like to write a few lines for the *Farmer*, if you do not think it is improper for so small a boy to do so. My father has always been a farmer. He has taken the *Farmer* a long time. My mother used to read it to me before I could read. I used to go to the Post Office for the *Farmer*, and I always hurried home to have mother see if there was anything said about little boys and girls. And I have been trying to learn as fast as I could, because I wanted to write for the *Farmer*. If I had not been out of school so long I think I could do it pretty well by this time, but we have lived in the woods more than a year, and I have been out of school all the time, only the last three months. But I have not staid out a day since school began. My father gives me a piece of his best ground every year, to cultivate as I have a mind to. This year it was small, for we had but little ground cleared; but I raised some corn, potatoes and beans. My onions and beets did not come up very good, and the drouth spoiled those that did come. Next spring I can have a large piece, and I shall raise some flowers too. I can weed and hoe my garden as good as a man, but I cannot plow it. I always liked to hoe in the garden. When I was about two years and a half old, I hoed up all of father's cabbage plants that had been set just long enough to begin to grow. I thought when I was doing it that it did not look like father's work, but I worked away and thought perhaps it would look better when I had

finished them. Sammy, the little boy that helped me, was afraid my father would whip us; but I knew he would not, though I was afraid he would not like the way it was done. We did not have any cabbage the next winter; but I am going to try to raise as many more next summer, as I spoiled before I knew how.

Newago Co.

FRANK STUART."

Frank's letter is evidence enough that he is an intelligent boy, and his punctual attendance at school is right, and just what we ought to expect from him. As he says he will cultivate some onions and beets next year, we will suggest to him a little experiment, which, if he has time, he may try, and he can report to the *Farmer* the results of it.

Let him lay out a piece of ground for his beets and his onions, of such size and shape as he thinks proper; but we suggest that it should be a parallelogram (if he does not know what such a big word means, he must find out its meaning from the dictionary, or from a school book on geometry). He should divide this parallelogram into three divisions of equal size, to each of which different treatment should be given. He might number the divisions 1, 2, and 3. Now, he might dig and sow the beets or onions in division No. 1, just as he has been accustomed to do. No. 2 he might dig and trench, and spade into it as much old cow-house manure as possible, and then sow the seeds. No. 3 he might dig and trench, and after making it smooth with the rake, he might sow the seeds without manuring; but after the young plants begin to show their first leaves, he might manure the plot with liquid manure. This is an experiment, of the progress of which he might keep notes in a little note-book, and he would thus learn to observe and use his eye and his mind in comparing the different results which would accrue from the several modes of cultivation.

In your letter, Frank, you complain that your crops were cut short by the drouth. Now, I suppose that when you dug your beet and onion ground, you did not turn up the soil to a greater depth than a common spade would go, which is about eight or nine inches. Now, I propose that you should try what effect turning the soil twice that depth would have to save your crops from the effects of drouth, and that is what I mean by *trenching*; *trenching*, or *trench digging*, is a gardener's term for double digging, which is performed thus:—A bed is measured off, and when the spades-man takes out the first spit or spadeful of earth it is laid on ground that is not to be disturbed. That leaves a trench of one spading in depth, the whole width of the bed. Then again, the spades-man commences in the bottom of this trench, and lifts out a second spit along the breadth of the bed. This leaves the trench two spades deep. Now the gardener commences on the second row of spadings on the surface,

digs the surface into the bottom of the trench, this fills the first trench half full; he then digs the second spit from the bottom of his trench, and puts it upon the top of the first spit, filling the trench full, and making the surface of his bed of the soil which lay at the bottom of his second spading. You will see that by this process, the soil is made twice as deep as it was in division No. 1, and that the mellow soil which composed the surface is at the bottom. Now the top soil may look rather lumpy, or if the soil is gravel it may not be dark colored, nor appear to be fitted for fine seeds, but you must make it as fine as you can by turning it over lightly again, to the depth of two or three inches with your spade, carefully breaking into pieces every little lump or clod, and in doing this, you may add to it the solid old manure which I have spoken of above, to be dug into No. 2. If this trench digging can be done in the fall, or before the ground is frozen, it would be better, for the frosts and snow have a very beneficial effect on soil exposed to the atmosphere for the first time; the reason for this I hope to teach you in future numbers of the *Farmer*.

The liquid manure, for irrigating No. 3 division, may be the liquid matter which passes from the cow or horse stables, and if it could be conducted by a covered gutter to a large cask or box sunk in the ground, and well clayed round, in place of a tank, you could dip it out with a pail. Or if this could not be done conveniently you might get your sister, who I perceive to be a very obliging girl, to save all the slops and dish water and suds for you, with which you might mix solid cow manure, at the rate of a half bushel to each barrel of suds, and let it out of the bottom of the cask by a plug, so as to strain it into your watering pot. With this irrigate No. 3 twice per week from the time the seeds sprout until the first week in September.

Watch the results of each kind of cultivation, measure the length of the growth of the medium sized plants, and note down regularly from week to week, the differences you may perceive in the growth of the plants, and how each division is affected by the drouth.

When the crop is dug, if you can weigh the produce of each bed, or measure it in some way, you will be able to judge whether there is a way of preventing the effects of drouth by depth of cultivation or not.

If you carry out this experiment, and make as good a report to me as your letter indicates you can, next year, I will make you a present of twelve of the best young apple trees I can find in the Nursery of Messrs. Hubbard & Davis.—ED. OF FARMER.

The Children.

"Well, here are the children, again!" exclaims mamma, as the rosy-cheeked troop come hurrying home from school, eager to feel the warmth of the kitchen fire, and to

see what satisfaction can be got from the ready supper table. And "Here are the children, again!" we exclaim, as the youthful members of our Household gather around us with their puzzles, enigmas and answers. We are glad to have them come, and glad to see their numbers increasing. Here are two new names in one letter—Joseph D. Clark, and Henry B. Palmer, of Lima, whose answers to enigmas 9 and 10 did not reach us till the number they should have been in was printed. Their letter must have been delayed on the way. And here is little Julietta, again, with a pretty little puzzle; and G. C., of Augusta; and Frankie, who has answered the zoological enigma, but says, "It will take an older head than is carried by a little girl less than twelve years of age, to solve the others." And there are two more new ones—Alfred Wellington, who comes with an answer in one hand and an enigma in the other, and "Jimmy," a boyish name enough, but, judging from the hand he has shown us, he carries an "older head" than any other on our list. However, both are welcome. We have some other little friends at White Swan, and some at Victor, in Clinton county, who write to us that they are so far from public roads, and the mails are so long in getting to them that they do not receive the *Farmer* till two or three weeks after it is printed, and then they hardly have time to send in their answers before the next number is out. These difficulties will be obviated as railroads and public improvements progress, when we hope to hear from them oftener.

We have a few words to say on the subject of spelling, but must defer it till another time, or we shall not have room for any enigmas.

Puzzle No. 1.

I am a preposition.

Head me with B and I am used to put wheat in.

Head me with F and I am on a fish.

Head me with G and I am a kind of liquor.

Head me with K and I am a relation.

Head me with P and I am indispensable.

Head me with S and I am what we all do.

Head me with T and I am very useful in the pantry.

JULIETTA.

Historical Enigma.

I am composed of fifteen letters.

My 6, 13, 6, 3, 11, 13, 7, 1, was a Roman Emperor.

My 13, 11, 13, 1, was anciently considered goddess of the rainbow.

My 2, 12, 8, 10, 14, 14, was a confederate of Rutili of Switzerland.

My 9, 4, 2, 15, 10, 1, 6, 7, 11, plus a vowel, is a city in the vicinity of "Bloody Meadows," where the power of the Lancastrians was overthrown in battle.

My whole is a great dish for Dutchmen.

JIMMY.

Disco, Macomb County, Nov. 1866.

There was one error in the zoological enigma of last month; the last number in the fourth solution should read 13 instead of 15. In the problem there were two errors, which made its solution impossible. We publish it again, corrected.

Problem.

Required the ages of A. and B., if $3\frac{1}{2}$ times A's age, plus 5 years is equal to $2\frac{1}{2}$ times B's; and ten years ago $5\frac{1}{2}$ times A's age plus 9 years equalled $3\frac{1}{2}$ times B's.

How long is it since $7\frac{1}{2}$ times A's age plus $5\frac{1}{2}$ years equalled $5\frac{1}{2}$ times B's? G. C.

Augusta.

Answer to Zoological Enigma.—GEN. GEO. WASHINGTON.—Answered by "Jimmy," of Disco; Frankie O. McAllister, of Locust Grove; Kate, of Rose Cottage; Alfred Wellington, Hockville.

Answer to Enigmatical Charade.—LOVE ONE ANOTHER.—Answered by Jimmy, of Disco.

Alfred Wellington has sent an enigma, but forgot to send the answer with it.

MICHIGAN FARMER.

ROBERT F. JOHNSTONE, EDITOR.

DETROIT, DECEMBER, 1856.

Officers of the State Agricultural Society.

President, JAMES BAYLEY, Troy.

Executive Committee.

NAMES.	POST OFFICE.	COUNTY.
Horace Welch,	Ypsilanti,	Washtenaw,
F. W. Backus,	Detroit,	Wayne,
A. N. Hart,	Lapeer,	Lapeer,
Edw'd G. Morton,	Monroe,	Monroe,
J. B. Crippen,	Coldwater,	Branch,
W. S. H. Welton,	Grand Rapids,	Kent,
J. S. Tibbets,	Plymouth,	Wayne,
J. J. Newell,	Adrian,	Lenawee,
Chas. Dickey,	Marshall,	Calhoun,
C. W. Green,	Farmington,	Oakland,
Wm Canfield,	Mt Clemens,	Macomb,
Archibald Jewell,	Dowagiac,	Cass,

To continue
for 1 year.Elected to
serve 2 years.

Vice Presidents.

NAMES.	POST OFFICE.	COUNTY.
J. R. Kellogg,	Alegan,	Alegan,
John Bowne,	Barry Centre,	Barry,
T. O. Woodruff,	Niles,	Berrien,
Eljah Lund,	Quincy,	Branch,
Chas. T. Gorham,	Marshall,	Calhoun,
Justus Sage,	Dowagiac,	Cass,
Samuel Ashman,	Sault Ste Mary,	Chippewa,
John Swearingen,	St. John,	Claton,
Keuben Fitzgerald,	Bellevue,	Easton,
James Seymour,	Flushing,	Emmett,
Monilton Craw,	Grand Traverse,	Genesee,
H. H. Sherman,	Jonesville,	Grand Traverse,
David Cass,	Ontonagon,	Hillsdale,
E. Felt,	Bunker Hill,	Houghton,
Cyrus Lowell,	Iron,	Huron,
Augustus Blair,	Jackon,	Ingham,
C. A. Jefferies,	Isabella Centre,	Isabella,
O. C. Tyrell,	Kalamazoo,	Jackon,
Truman H. Lyon,	Grand Rapids,	Isabella,
Phineas White,	Lapeer,	Kalamazoo,
B. J. Bidwell,	Tecumseh,	Kent,
H. H. Norton,	Howell,	Lapeer,
J. P. Klog,	Mackinaw,	Lenawee,
R. P. Stone,	Roseville,	Livngton,
G. H. Sherman,	Monroe,	Mackinaw,
John L. Moss,	Saginaw City,	Macomb,
Henry Ashman,	Rochester,	Monroe,
Charles Baldwin,	Ontonagon,	Montcalm,
Abner Sherman,	Grand Haven,	Midland,
Henry Pennoyer,	Saginaw,	Newago,
W. L. P. Little,	Lexington,	Oakland,
John Divine,	Corunna,	Ontonagon,
Luke Parsons,	St. Clair,	Ottawa,
J. E. Kilton,	Colon,	Saginaw,
Charles L. Miller,	Tuscola,	Sandiac,
Richard Beach,	Two Rivers,	Shawnee,
Philatus P. Hayden,	Ypsilanti,	St. Clair,
F. S. Finley,	Plymouth,	St. Joseph,
Silas Sly,		Tuscola,
		Van Buren,
		Washtenaw,
		Wayne,

The corresponding Secretary of each County Agricultural Society is the corresponding Secretary of the State Society for his county.

The Present Volume.

With this number, the labors of the *Farmer* are finished for the year 1856. We look on the volume which we have furnished with some degree of pride and satisfaction. For varied information, useful to the practical farmers of Michigan, and of the North-West, we challenge for it a comparison with any other periodical of the kind east or west, weekly or monthly. Our friends and subscribers can turn over its pages from the first to the last, and they will find that whether they are the farmers of 1000 acres or of only 100 acres, the knowledge it imparts is applicable and of like utility in either case. Glance back

at the articles relating to oats, wheat, corn, maple sugar, stump machines, the clearing of land, draining, the improvement of marshes, the use of marls, the motion of sap, the raising of stock, the cost of crops, the economy of manures, the descriptions of farms, and of the several sections of the state as yet but little known, and say whether we have or have not furnished information in relation to Michigan farming, which no man who has an acre of land to cultivate would be without for twice the amount of his subscription. It has been, and is our ambition to make the *Michigan Farmer* a record of practical farming, such as may be useful to the actual tiller of the ground in the present progressive state of agriculture. In order to carry out this design, it becomes the duty of such a journal as ours, to direct attention to the improvements and discoveries which may be made by the application of the sciences to agriculture. We may not ignore *book farming*, for it is by successful or unsuccessful experiments, as written down and printed in books or periodicals that most of our farmers are excited to try to improve. We have now before us letters from subscribers, stating that the facts and practice given in the present volume, relative to draining and the improvement of swamps, marshes and swales, have at length aroused the writers "to take hold of the marshy lands on their farms, and that they too, even in their old age, have begun to ditch." In other matters connected with the growing of crops, and the general economy of the farm, we have also gratifying testimonials, that we have sown seed that is promising abundant returns, and of which our readers are to reap the fruit.

Our many correspondents, who have sent us the results of their experience, have also done a good share of the work, for which our readers should be grateful. We hope to have still more of them another year. Every one should do his share. All communications giving experiments, practice, trials of new implements, of new methods of work, whether successful or not, should be communicated freely. They are always welcome. Sometimes they may not be published because the subject of which they treat has already been discussed. But in a new state like Michigan, every one's experience is useful, as serving to guide us in giving answers and advice to many, who are seeking and making "new homes." We therefore say to all, continue to write for your paper.

During the year we have labored faithfully in sickness and in health, and claim that we have done something to develop the fertility of the state; we ask in return that all those who take an interest in agriculture, should encourage us to further efforts by aiding to extend our circulation in their immediate neighborhood. We have many friends and subscribers in Ohio, Indiana, Illinois, Iowa, Wisconsin, and Canada, but still the main support of the *Farmer* must come from Michigan. We do not say to any

one, you should stop all other papers and take the *Farmer*, but we do ask, should you not give a hearty support and encouragement to a journal which is devoted particularly to all the important interests of your own locality and state, in preference to sustaining the press and the writers of other communities, who neither know you, nor care whether your state or county is prosperous and advancing or not?

Our Stock Register.

We call the attention of those who are bringing stock into the State, and raising stock in Michigan, to the importance of having a record of the pedigree of their animals. On the 12th instant a sale of valuable animals took place at the farm of Messrs. Brooks of Novi, an account of which is given us by our friend Wm. Hunter, Esq., on another page. There were a number of animals which, had it been published they were offered for sale, and had their blood been known, might have brought a much larger sum than that named in the report. Previous to their sale, they were all together, and of course their several families were known to their breeders, as well as the different strains of blood with which they were crossed. Now these animals are all scattered over different farms. There is not one of them that may not raise some stock of merit, and which may not come into market. With a clean pedigree on public record this stock would be worth more per head for breeding purposes, than without by at least ten per cent. Yet the breeders take no pains to sustain a record that has the widest circulation throughout the State, and is of value to every man who would buy or breed a pure strain of shorthorns or Devons. Again, here is Mr. Sands, of Jonesville, who has recently brought into this State a bull of extraordinary good pedigree, but his record of it was so mixed up that it required nearly three hours of close study to put it in the shape in which it appears in our register. But there it is now on record, and in such form that it can be verified at any time. It shows that Romeo is descended in a direct line from imported full blood stock, on both sides, and that his progenitors are nearly all recorded in the American Herdbook, and that the imported stock to which the American progenitors have been traced, are recorded in the English Herdbook. We ask any stock breeder if Romeo, to-day, is not worth \$100 more than he was before it was known that his pedigree was such as we have made it out. Another point—look at this stock for the future, when it is traced up to No. 22 of the Michigan Stock Register, it is not necessary to go farther, because it will be known throughout the whole State, whenever this number of the *Farmer* is issued, what sort of bull Romeo is. When a seller says to a buyer, who belongs either to this State or to some other, "the animal I offer you is out of

Beauty, a full blood cow got by Romeo," it is at once known that on the side of the dam, at least, the animal offered is from superior and pure shorthorn ancestry, and its reputation so far is established, because it is known or has been verified up to that point. This is the use of the Stock Register, and the insignificant sum charged for entry is not more than enough to repay us for the time that is spent in keeping it straight. In fact, the amount derived from it is intended for the purchase of a set of the English Herdbooks, of which there is not a copy in Michigan to which our farmers can now refer, or to which all can have ready access to trace out the descent of imported animals. With these views of its utility to the agricultural interests, we ask Michigan breeders to bear in mind that, if they would sustain the reputation of their stock, they must keep their pedigree recorded where it can be referred to at home, and that there is no place so appropriate as the *Michigan Stock Register*.

ORCHARD FRUITS—NEW APPLES—SCIONS.—We ask attention to the chapter on fruits, by T. T. Lyon, in the present number. Many of those who are now preparing, or laying out orchards, to be planted the coming spring, will find the observations and advice of Mr. Lyon of great service. His own experience in this State as a fruit grower makes his opinion of much authority.

We also call attention to his description of the Davis apple, a new Michigan variety, which seems to have qualities rendering it an important addition to the list of fruits for orchards in this State.

Mr. Lyon, we believe, can furnish scions of nearly all the varieties of which he speaks in his communications, and as those who procure them of him can depend upon their correctness. Those who seek to improve their orchards or old trees would do well to apply to him.


Hulbert's Plow.

This plow, for the first time, has just been introduced into this State. The Messrs. Goodrich, of Ann Arbor, have begun to manufacture them, and of whom they may be obtained.

From a personal examination of the plow we think it has merits above plows now in use, by the mould board presenting a regular convex surface, an adjustable beam, and a spring draft clevis, thereby equalizing the power and securing against accident by sudden resistance. They may be gauged to plow from four to twelve inches deep. From the recommendations we have seen, they appear to have met with general acceptance. Persons desirous of obtaining patterns can do so on very reasonable terms by addressing Mr. S. Hulbert, Ogdensburg, N. Y.

WRITE FOR YOUR PAPER.—The busy season is over, and long evenings now give our friends time to reflect on the improvements and the errors of last year's work, and to make observations thereon which may prove useful to others. We therefore look to them now for many useful illustrations and descriptions of the modes of practical farming, their management of different kinds of stock, and all matters connected with the management of the farm. Many of our subscribers are putting up or are planning barns and stables, or perhaps whole ranges of barns, sheds and yards. We should be pleased to hear from all such correspondents, and when they furnish us with drawings or plans that contain any thing new, or plans of their farms, if we like them, they shall be used to illustrate our pages, and to exhibit what our Michigan farmers are doing in the improvement of their farms, and their management. It is by serving as a means of inter-communication to our own agriculturists, that the *Michigan Farmer* seeks to be useful, and to do its whole duty in promoting the growth and the prosperity of the farming interests, and we expect the aid and assistance of every tiller of the soil in Michigan, and we ought to have them.

In the present number we give the first of a series of articles on the feeding of animals and the economy of the barn-yard. How many are there who ever reflect that if they keep a certain number of animals, they must have so much of a store of feed to use, and that to grow the feed they must appropriate a certain number of acres of their land. Any information which will illustrate the practice, the cost and the economy of feeding, working, or fattening animals in the State ought to be forwarded. We also want whatever information may be thought useful concerning the practice and methods of saving and applying manures.


 We perceive that Dr. Dadd, the author of the "Modern Horse Doctor," and the "Cattle Doctor," is preparing to publish a book to be entitled "The Anatomy and Physiology of the Horse." This work promises to be the most useful work yet written for horse breeders. The whole anatomy is to be treated, as well as the physiology of the horse. The work is to be accompanied with superb illustrations either colored or uncolored, the plates to be got up in France. The price of the work uncolored will be \$2 00, and the colored edition will be \$4 00. Those who desire to subscribe for this work may send their names to the editor of the *Michigan Farmer*, and we will forward them to the publishers, or we will furnish a copy of the uncolored edition to any of our friends who will get us up a club of twenty subscribers to the *Farmer* for the year 1857.

W. R. S.—Your letter and inquiries as to ashes will receive full attention next number.

TO OUR SUBSCRIBERS.—We shall, in accordance with the usual custom forward the January number of the *Michigan Farmer* to all our present subscribers, except those ordered discontinued. There are in the vicinity of every post-office local agents appointed to receive subscriptions, and every postmaster is authorized to forward subscriptions to the *Farmer*. Single subscribers can mail us per registered letter the usual amount. As we are now opening a new set of books, we would like to have all who wish to discontinue or have their post-offices changed notify us previous to the 1st January.

The Executive Committee, of the Michigan State Agricultural Society, will hold their annual meeting at Lansing on the second Monday (12th day) of January 1857. Ex-Presidents of the society and delegates from county Agricultural Societies are invited to be present.

J. C. HOLMES, Sec'y.

 We are not advocates of any excitement, and we have cautioned our readers not to trust or put faith in the exaggerated notices of the *Dioscorea*, or Chinese yam, which have been circulated. But when a real trial of a new plant is brought forward, it should be known. Mr. Wm. Adair, the well known nurseryman, near this city, left with us a few days ago, a Chinese yam, grown by himself, from the little bulbs, a small package of which was sent to him from the patent office two years ago. The yam presented to us was about the size and shape of a medium sized parsnip. It was baked with some potatoes, and turned out as white and as palatable as a good potato. Some salt and butter added to it made it good enough for us, and very excellent. Mr. Adair has promised us a short account of his treatment of it, next month, and we may add that, he can supply roots to make cuttings for seed, if any of our readers should like to try it.

A Morgan Horse Book.—C. M. Saxton has just issued an essay on the Morgan and Black Hawk horses, which we shall notice next month.

THE HORTICULTURIST AND THE FARMER.—We will furnish the *Horticulturist* and the *Farmer* to any of our subscribers who may wish to take both at the rate of \$2 50 per annum.

THE LAPORTE CO. FAIR.—A correspondent writes to us that the Laporte county fair of this year was very successful. The show of cattle and horses, both in quality and numbers, was superior to that of last year, and evinced that the farmers in the vicinity were paying attention to their stock. The Floral Hall division was very handsome, and attracted a large number of visitors. The fruit and flower department, like other exhibitions of this year, was not first rate, but that was the fault of the weather.

County Agricultural Societies.

It is very desirable that the annual returns of the county agricultural societies should be made to the Secretary of the State Agricultural Society, at as early a date as possible. Some of the counties are always prompt in making their returns, while others are as uniformly tardy, if not wholly delinquent.

Fifteen copies of the Transactions of the Agricultural Societies is due to each county agricultural society that makes a report.

It is hoped that for the future the officers of county societies will give this matter their attention, and see that full reports are transmitted to the Secretary of the State Society, with as little delay as possible.

Members of the county agricultural societies feel a just pride in seeing their efforts for progress and beneficial results crowned with success; but, when they turn over the leaves of a volume of Transactions and find no mention whatever of their county, or its agricultural society, they very naturally feel somewhat chagrined.

A few copies of the volume of Transactions for 1855 have been received from the State Printer, and as soon as others are received they will be ready for distribution.

J. C. HOLMES,

Sec. Mich. State Agricultural Society.

Detroit, Nov. 21, 1856.

Sale of Valuable Improved Short Horns.

We ask attention to the following letter from L. G. Morris, Esq., relative to the shorthorn stock of the late Noel J. Becar, of Long Island. The late Mr. Becar joined with Mr. Morris in selecting and purchasing shorthorns in England, and the selections from the various herds were the very choicest and best animals offered. In the lists of sales of Bates of Kirkclevington, of the Earl of Duncle, of Knightly of Tanqueray, and others, Mr. Becar's name appears as the purchaser of the highest priced animals, in conjunction with that of Mr. Morris. His herd is very superior, and well worthy of the attention of those about to lay the foundation of a stock of pure blooded shorthorns, and those who would wish full information about it may send their names to us for copies of the catalogue to be furnished previous to the sale, and we will forward them to Mr. Morris.

R. F. JOHNSTONE, ESQ., EDITOR OF THE MICHIGAN FARMER.—*Dear Sir:* I wish to communicate, through your columns, to the breeders of shorthorns, that I have been authorized, by the Executors of the late Noel J. Becar, to dispose of his entire herd of far-famed shorthorns. We have also determined not to sell a single animal from that herd until June, 1857, on the day of my annual sale, which generally takes place about the 20th.

Many inquiries have been made, by letter and otherwise, and I take this course to answer previous and future questions.

A very full and explanatory catalogue will be issued in due time, and very generally circulated to all my present correspondents, and as many others as may desire it.

L. G. MORRIS.

Mount Fordham, Westchester Co., N. Y., Oct. 31, 1856.

Michigan Stock Register.

Shorthorns.

No. 22.—*Romeo*—A rich red roan bull—owned by Wm. F. Sands, of Jonesville. Calved July 1852. Raised by Mr. J. J. Sheafe, of New Hamburg, Dutchess county, New York, and sold to R. S. Allen for J. Bard, from whom he was purchased by the present owner. Sired by Wyandotte, and dam Young Sylph.

Dam, Young Sylph, by Oakland, (762 A.)

grand dam, Sylph 1st, by Lubin, (96 A.)

g. g. dam, Nell Gwynne, by Whisker.

g. g. g. dam, Flora, by Patriot.

g. g. g. g. dam, Nonpareil, by Young Comet.

g. g. g. g. g. dam, Arabella, imported, by North Star, (460 E.)

Sire, Wyandotte, (1113 A.) out of Creampot 2d, got by Don, (52 A.)

g. dam, Creampot 2d, by Guarionez, (68 A.)

g. g. dam, Creampot, by Lord Althorp, imported, (658 A.)

g. g. g. dam, Flora Hills, by Young Eclipse, (see Am. Herdbook, p. 163, vol. 1.)

Mr. Sands transmitted to us a very imperfect memorandum of pedigree, but with the aid of the Herdbook, we have traced Romeo out as above, and by the side of the sire his descent is perfect. We may add here that "Lord Althorp" was from a remarkably good milking family. It is stated in a note on page 163 of vol. 1 of the American Herdbook, that Lady Althorp, the dam of Lord Althorp, gave 30 quarts of milk per day for some months after calving, five quarts of which made 8½ ounces of butter. Of the pedigree on the side of the dam, we we cannot find any trace of Nell Gwynne. The bulls Oakland and Lubin are traced back, and are of straight descent, and the others, Young Comet and Patriot, are mentioned in connection with other pedigrees; so in the cow Nonpareil, her calf Flora is true, but when we come to Nell Gwynne we have nothing to testify in favor of Whisker, her sire. That is the only doubtful spot in the pedigree, and it may be good for aught we know. We have taken some pains with this pedigree, because every one that comes to us hereafter will be treated in the same manner. We mean that no pedigree shall get into our register, unless it is examined, and when there are any blemishes we take the liberty of calling attention to them. In the above pedigree, when the figures have A after them it means American Herdbook, and when E is placed after them, the figures refer to the English Herdbook. We think that Romeo presents as fair a record as can generally be found.

ST. CLAIR COUNTY FAIR.—We are pleased to note that the first annual exhibition of the St. Clair County Society was highly encouraging to its future prospects, and the list of premiums awarded is sufficient testimony that St. Clair is advancing and introducing improved stock and implements. S. S. Hart appears as the most successful with shorthorns, while our friend, S. B. Brown, made a good show of Devons. The address was delivered by O. D. Conger, Esq.

The next fair is to be held at Port Huron. The officers chosen for the next year are, President—John E. Kitton, of St. Clair; Vice President—Ralph Wadham, of Kimball; Treasurer—W. M. St. Clair, of St. Clair; Secretary—Edgar White, of Port Huron; Executive Committee—S. B. Brown, of St. Clair; M. S. Gillett, of Port Huron; John Nicol, of St. Clair; Asa Larned, of Port Huron; J. D. Brown, of Cottrellville.

The Home Journal, edited by N. P. Willis & Geo. P. Morris, has issued its prospectus for the coming year. Mr. Willis promises another series of his very charming and very valuable letters to invalids, and also a series of "Portraits of Living Characters." General Morris will enliven the Journal with his sketches, songs and ballads, and a prose poem is promised from T. B. Aldrich. As a journal of the *haut ton*, containing literary sketches, communications, criticism, and information of all going on in upper-tendom, the *Home Journal* has no superior.

The Saturday Post which we advertise in the *Farmer* this month, is one of the best family weekly newspapers. The publishers promise a variety for the next year, from some of the best literary talent in the country, which ought to satisfy all readers. It contains a vast amount of instructive and amusing reading on all subjects, fashions, literature and science.

MONTCALM COUNTY FAIR.—The *Montcalm Reflector* speaks very encouragingly of the first agricultural fair held in that County, at Greenville. The numbers and quality of the stock exceeded the expectations of the most sanguine. Of course, in counties so recently settled, and on the first trial, there cannot be any very large premiums offered. But we see that the farmers, and those to whom awards were made, with an honorable liberality, returned the premiums to the society for the purpose of giving it aid and comfort for the next exhibition. Such a spirit will aid in building up the society, and render it a useful institution.

ENGRAVINGS.—We call attention to the advertisement of Mr. Downer, in this number. Mr. Downer is a very skillful wood engraver. He has executed several very excellent engravings for us, of which the Southdown sheep in our last number is an excellent specimen. He also executes the very delicate engravings required by Dr. Goadby to illustrate his scientific articles in the *Medical Independent*.

SALE OF SHORTHORNS.—The Rev. Dr. Breckenridge, of Lexington, Ky., sold his herd of shorthorns last month, and for a bull and six bull calves got \$354 50, and for twenty-seven head of cows, heifers and heifer calves, \$3,546 50.

Samuel Thorne, the great breeder, of Dutchess county, New York, swept the shorthorn premiums at the National Fair at Philadelphia. His bull, Neptune, and his cows, Lady Millicent, Lallah Rookh, Mistress Gwynne, Peerless, Alma, and Azalea, and the new importations, Mrs. Flather and Dianna Gwynne, were all considered first class animals, and so they ought to be, if there is any thing in blood and breeding. We perceive that the Devons also keep up their reputation as a favorite breed, and excite attention. The Herefords were present in greater numbers and of better quality than at any fair heretofore. This is a breed which is working its way forward, and for quality of beef often takes the premiums over all other breeds, including the best bred and handsomest shorthorns.

We call attention to the advertisement of Messrs Hubbard & Davis, offering for sale trees, scions, and plants. These nurserymen have a good stock on hand now. They have been making large additions to their grounds and varieties for the past two years, and their stock is well worth a trial by those who are preparing to set out orchards.

EXPERIMENTAL RESEARCHES ON THE FOOD OF ANIMALS. By R. D. Thomson; reprinted from the last London edition, and published by C. M. Saxton & Co., New York.

This work is based on a series of experiments undertaken at the expense of the British Government, to determine the value of barley and malt in the feeding of animals. This work is not calculated to direct how to feed, but there is no publication more valuable for giving those seeking it information as to the effects of food on animals, and the composition of various kinds, especially with reference to the dairy and the formation of flesh and fat. The tables alone are very valuable.

THE DOG AND GUN. By J. J. Hooper. New York, C. M. Saxton & Co.

This is one of Saxton's Rural Handbooks, and gives some brief but good instructions as to the handling of guns, and the training and management of sporting dogs, and also many hints in relation to the game birds of the country.

FAMILIAR LETTERS ON CHEMISTRY. By Justus Liebig. New York, C. M. Saxton & Co.

The name of Liebig is so connected with science and agriculture, and his researches are so intimately connected with all that is most important to farmers, that even when he proves himself to be human by being mistaken sometimes, he is listened to with the highest respect. These letters are written to show how necessary a knowledge of chemistry is in every department of business, and in every profession.

THE HORSE'S FOOT, AND HOW TO KEEP IT SOUND. By Wm. Miles. New York, C. M. Saxton & Co.

This is a pamphlet giving a great deal of information about the anatomy and construction of the foot of the horse, a subject upon which there is a vast amount of ignorance, even among the best blacksmiths and farriers. We commend this little cheap teacher to their attention, and also to all who would like to learn why their horses sometimes go lame, though shod in the best manner, as far as the smith knows how.

THE PRINCIPLES OF PRACTICAL AGRICULTURE. By A. D. Thaer. Translated by William Shaw and C. W. Johnson. New York, C. M. Saxton & Co.

Thaer stands at the head of the German School of Practical Agriculture, and his principles are correct and of value. When Thaer began to write on agriculture, there were but few works which he could consult. Much of his experience is embodied in his "principles," and, in fact, the whole work is but a detail of his own observations. But then, his observations were those of a man skilled in the best methods of regulating science, and, therefore, his work is the basis of German agriculture at the present time. All the details in this volume are of value, because suggestive of the propriety of exactness. The work is a standard one, and Messrs. Saxton & Co. have published it in a good form.

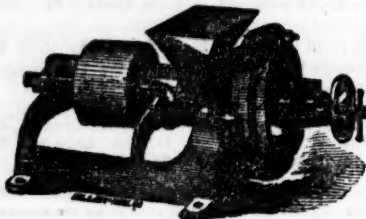
CHINESE SUGAR CANE.—It will be noticed that Mr. Orme, of Atlanta, advertises the seed of the Chinese sugar cane for sale. This plant, so far as is known about it, does not ripen its seed as far north as this State, but grows and ripens sufficiently to enable a good crop of sugar juice to be extracted, and as a plant for green fodder for cattle is reported as unsurpassed. We have an article referring to it ready for publication, but it has been crowded out until next month.

The Markets and their Prospects.

Since our last issue, the markets have declined so far as breadstuffs are quoted. The last advices from Liverpool brought advices that the British markets were well stocked, that demand was light, and that prices had declined to the amount of 12 to 15 cents on a barrel of flour, and 4 to 5 cents on a bushel of wheat. Nor was there any prospect of a greater activity. The New York and Boston markets also seem well stocked. The markets here yielded slightly during the month. Oats have advanced, and corn is worth a little more. Farmers are now beginning to bring in their hogs for sale, though not many have been offered yet. Prime hogs are worth \$6.50 to \$7. Beef in the carcass ranges from 4 1/2 to 6 cents. Mutton in the carcass is freely offered in any quantity at 3 cts. But choice fat wethers are worth 3 1/2. Butter keeps up and advances, good fresh retelling at 25 cents. The supply of apples is not large. Cranberries sell at \$4, per bushel. Poultry is taken at fair prices as fast as brought to market. Eggs are also wanted, and retail at 18 to 20 cents.

BREADSTUFFS AND GRAIN.		SEEDS, PLASTER, SALT, &c.	
Flour, bbl.	\$5.50 a 6.00	Clover per bush.	\$7.50 a 8.50
Cornmeal, 100 lbs.	1.25 a 1.37 1/2	Timothy.	2.75 a 3.25
Buckwheat, 100 lbs.	3.00 a	Red top.	1.75 a 2.00
Wheat, bush.	1.15 a 1.20	Blue, grass.	3.00 a
Corn, bush.	0.53 a	Orchard grass.	3.00 a
Oats, bush.	0.44 a 0.45	Sandusky plaster, bbl,	1.25 a
Barley, per 100 lbs.	2.25 a 2.37 1/2	Grand River.	1.50 a
BEEF, MUTTON, &c.		N Y Plaster.	1.13 a
Beef on foot.	\$2.50 a 3.50	Sandusky water lime,	1.50 a
Beef dressed.	4.50 a 5.50	N Y do.	1.31 a
Sheep, dressed per lb.	0.03 a 3 1/2	Salt fine bbl.	1.75 a
Sheep on foot.	2.25 a 3.50	do coarse.	2.25 a
Hogs per 100.	6.50 a 7.00	MISCELLANEOUS.	
Turkeys.	1.00 a 1.50	Apples per bush.	50 a 62 1/2
Chickens, pair.	37 1/2 a 0.50	White fish, half bbl.	4.50 a 3.00
Geese.	37 1/2 a 0.50	White beans per bush.	2.00 a
Eggs per doz.	14 a 20	Sheep pelts.	50 a
Butter, per lb. fresh.	24 a 28	Hay and timothy, ten,	9.00 a 10.00
do firkin.	17 a 19	Common.	7.00 a 8.00
Cheese per lb.	9 a 11	Honey.	20 a 25
		Potatoes.	62 1/2 a

TO FARMERS, MILLERS & LUMBERMEN



FIFTY-SEVEN PREMIUMS

At the World's Fair, London, the American Institute, Michigan State Fair, and other Societies, have

BEEEN AWARDED TO

CHARLES ROSS'

PATENT CONICAL

BURR-STONE MILLS,

AS the most perfect Grinding Mills ever offered to the public. Either for Farmers' use by Horse Power, or for flouring and re-grinding middlings and other offals in large flouring mills, they excel all other kinds of mills, giving a larger yield and a better flour, having no oscillating motion, and easily kept in good face; and are the only mill well adapted to the untidy motion of saw-mills, for meal, Graham flour, or feed grinding. They are a great saving in Power and Investment in building mills. The factory prices are \$75, \$100, \$140, \$170, \$200, and \$300, and freight to the place of delivery. For sale by M. J. COOK, near the Post Office, No. 19 Griswold street, opposite M-rehants' Exchange. To be found in operation in this city, at W. W. Davis & Co.'s Conical Mills, also in various parts of the State and country. Descriptive circulars sent, by addressing

M. J. COOK, Agent, Detroit,

N. B.—An additional Premium and Diploma were awarded on these Mills at the Michigan State Fair of 1855, and at the New York State Fair of 1854; the highest Premium was awarded on Flour manufactured by these Mills, though amid powerful and exciting competition.

[Je-tf]

A PERFUMED BREATH.—What Lady or Gentleman would remain under the curse of disagreeable breath when by using the BALM OF A THOUSAND FLOWERS as a dentifrice would not only render it sweet but leave the teeth white as alabaster? Many persons do not know their breath is bad, and the subject is so delicate their friends will never mention it. Pour a single drop of the BALM on your tooth-brush and wash the teeth night and morning. A fifty cent bottle will last a year. A beautiful complexion may easily be acquired by using the Balm of a Thousand Flowers. It will remove tan, pimples, and freckles from the skin, leaving it of a soft and roseate hue. Wet a towel, pour on two or three drops and wash the face night and morning. Shaving made easy, wet your shaving-brush in either warm or cold water pour on two or three drops of Balm of a Thousand Flowers rub the beard well and it will make a beautiful soft lather much facilitating the operation of shaving. Price only Fifty cents.

Beware of counterfeits and imitators, none genuine unless signed by **FETRIDGE & CO., Proprietors,** nov-6m New York.

DOCTOR HOOFLAND'S

CELEBRATED

GERMAN BITTERS,

PREPARED BY

Dr. C. M. JACKSON, Philad'a, Pa.

WILL EFFECTUALLY CURE

LIVER COMPLAINT, DYSPEPSIA, JAUNDICE,

Chronic or Nervous Debility, Diseases of the Kidneys, and all diseases arising from a disordered Liver or Stomach.

Such

as Constipation, Inward Piles, Fullness or Blood to the Head, Acidity of the Stomach, Nausea, Heartburn, Disgust for Food, Fullness or weight in the stomach, Sore Eructations, Sinking or Fluttering at the pit of the Stomach, Swimming of the Head, Harried and difficult Breathing, Fluttering at the Heart, Choking or suffocating sensations when in a lying posture, Dimness of Vision, Dots of webs before the Sight, Fever and Dull Pain in the Head, Deficiency of Perspiration, Yellowness of the Skin, and Eyes, Pain in the Side, Back, Chest, Limbs, &c. Sudden Flushes of Heat, Burning in the Flesh, Constant Imaginings of Evil and great Depression of Spirits.

The proprietor is calling the attention of the public to this preparation, does so with a feeling of the utmost confidence in its virtues and adaptation to the disease for which it is recommended.

It is no new and untried article but one that has stood the test for ten years' trial before the American people, and its reputation and sale is unrivalled by any similar preparations extant. The testimony in its favor given by the most prominent and well known Physicians and individuals in all parts of the country is immense and a careful perusal of the Almanac, published annually by the proprietor, and to be had gratis of any of his Agents, cannot but satisfy the most skeptical that this remedy is readily deserving the great celebrity it has obtained. Principal Office and Manufactory. No. 56 Arch St., Philadelphia, Pa.

GREAT CURE OF PILES.

CAMDEN, N. J., March 12, 1855.

DEAR SIR:—It is with much pleasure I take this opportunity of informing you of the great benefit I have derived from the use of a few bottles of "Hoofland's German Bitters." For a number of years I have been sorely and severely afflicted with pain in the stomach, attended by attacks of the Piles, for which I tried a great many remedies, but without affording me any relief. Being advised to use the German Bitters, I did so, using in connection for the Piles, your Spikenard Ointment, and I now inform you that they have entirely cured me and resorted me to health, and I would advise all the afflicted to use your valuable medicines, &c.

Respectfully yours, **MARGARET REPHER.**

No. 46 Plum Street, Camden, N. J.

Dr. C. M. Jackson, Philadelphia.

For sale by druggists and storekeepers in every town and village in the U. S. and Canada.

Dec. 1854.—1 year.

HENRY E. DOWNER.

WOOD ENGRAVER.

No. 53 Woodward Ave., (Over Dey's Exchange Office),

DETROIT, MICH.

Engravings of Agricultural Implements, Views of Buildings, Animal Portraits, Machinery, Vignettes, Bill Heads, Business Cards, Stamps, Seals, &c., &c. done on the shortest notice and in the best style of the art, at New York charges. P. O. address, Box 387. dec—11.

BOLLES'S CROSS-CUT SAWING MACHINE.

The attention of the public is again asked to this most

COMPLETE LABOR SAVER.

One that truly has the approbation of all men far and near who have used them, in all cases giving full satisfaction, and is beyond doubt the Best Machine known to cut Wood, Staves, Hubs or Shingles, firm and compact, only weighing 1000 lbs. with truck and log carriage 24 feet long, easily transported in a common wagon box, and adapted to any kind of power, fitted for tumbling rod or band; may, or may not be stopped to change the log, which is easily done even by a boy, and with a two-horse power and one hand will saw 20 to 35 cords of wood per day, and is a profitable Machine for thrashers to buy to use with their Power and Team after thrashing season is over, as I never knew one that would not command \$5 per day, giving full satisfaction.

PRICES:

All complete with saw.....	\$60 00
Two-horse sweep power.....	50 00
Two-horse R. R., or endless chain power.....	116 00
Twenty-four inch buz saw ready for use.....	38 00
Machine cross-cut saw drilled and filed.....	5 75

I have also for sale the *Little Giant Corn and Cob Mill*, Grain Drills, Danford's Mowers and Reapers Pitt's Corn and Cob Mills, Horse Powers and Thrashers, &c. &c.

Orders thankfully received and Machines forwarded to any part of the country by railroad.

GEO. N. BOLLES.

KALAMAZOO, MICH., October 15, 1856.

nov3t

Clarke's Female Pills.

THE GREAT ENGLISH REMEDY.

Prepared from a Prescription of Sir John Clarke,
M. D. Physician Extraordinary to the Queen.

THIS invaluable medicine is unfailing in the cure of all those painful and dangerous disorders to which the female constitution is subject. It moderates all excess and removes all obstructions and a speedy cure may be relied on.

TO MARRIED LADIES

It is particularly suited. It will, in a short time, bring on the monthly period with regularity.

Each bottle, Price One Dollar, bears the Government Stamp of Great Britain, to prevent counterfeits.

Caution.

These Pills should not be taken by females that are pregnant, during the first three months, as they are sure to bring on miscarriage; but as every other time and in every other case, they are perfectly safe.

Sole Agents for the United States and Canada,

I. C. BALDWIN CO.,
(Late J. Bryao.) Rochester, N. Y.

TUTTLE & MOSES, Auburn, General Agents.
For sale in Detroit by J. S. CUTHBERT & CO., FARRAND & WHEA: ON, T. & J. HINCHMAN, M. M. PECK, GEO. B. DICENSON & CO., E. C. TERRY, and in one Druggist Store in every town in the United States.

Oct. 1st, 1855.

6m

PURE BRED STOCK FOR SALE.

THOROUGH BRED DURHAM CATTLE, Pure Bred French Sheep, Pure Bred Spanish Sheep, and Pure Bred Essex Pigs and Suffolk Pigs. Apply to J. S. GOE, Tippecanoe, Fayette Co., Pa., 4½ miles East of Brownsville.

April, 1860

ap 1y

WM. WAGNER,

MANUFACTURER and dealer in Ready Made Clothing. His assortment will always be found complete. Also, an assortment of Cloths, Casimeres, Vestings, and Gentlemen's Furnishing Goods Custom Work and Cutting done to order. No. 11, Phoenix Block, Main street, Ann Arbor, Mich.

jet

FURNITURE WAREHOUSE, ON JEFFERSON AVENUE,

BELOW MICHIGAN EXCHANGE, DETROIT.

The Subscribers keep constantly on hand a large stock of
ELEGANT FURNITURE,
Both Modern and Antique Styles; in Rosewood,
Mahogany and Domestic Wood.

Those wishing rich and fashionable Furniture, will always find a great variety to select from—equal in every respect to anything in the Eastern market. Being in constant receipt of Pattern Pieces from the

FASHIONABLE MAKERS IN NEW YORK

they are enabled to guarantee the most PERFECT SATISFACTION to their customers.

They also keep constantly on hand a large and complete assortment of Plain Furniture of Mahogany, Cherry and Walnut. In short, every article in the line of Household Furniture will be found in their Stock, including Chairs of every style and price, from four shillings to sixty dollars each. The subscribers now have on hand, and make to order, best

HAIR MATTRESSES.

Their customers can rely upon getting a genuine article.

CORN-HUSK MATTRESSES AND STRAW PALLIASES constantly on hand. For the trade we keep constantly a large stock of Mahogany and Rosewood Veneer.

June '56, 11.

STEVENS & ZUG.



DR. C. E. PORTER & BROTHER. DENTISTS.

WE are permanently located in the city of Ann Arbor, and may be found at all times, ready to perform any operation in dentistry, with neatness and dispatch. Teeth cleaned, and filled with pure gold so as to arrest disease, and preserve their usefulness.

ARTIFICIAL TEETH

Inserted upon pure gold and platinum, unequalled for beauty usefulness, and durability.

Ann Arbor, Main street Mich.

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CLOVER HULLERS & CLEANERS, different patterns.

Sept:5t

D. O. & W. S. PENFIELD.

GILMORE'S PATENT BEE HOUSE AND HIVE.

PATENTED JUNE 5, 1849, PATENT EXPIRES JUNE 5, 1893.

THE undersigned has purchased the right for the counties of Esau, Calhoun, St. Joseph, Branch, Hillsdale, Lenawee, Monroe, and Saginaw. Offers in individual rights in those counties with Book of directions for building managing, &c., for \$5.00. This plan secures swarms from being robbed. Comb is renewed once in three years. Feeding facilities, unsurpassed. Bees swarm out or go from hive to hive at the will of the manager. Superior inducements to clubs for town rights. Agents wanted in every township.

Vermontville, April 16, 1886.

C. SMITH.
May 4.

THE CELEBRATED NURSERIES

OF

ANDRÉ LEROY,

AT ANGERS, - - - - - FRANCE.

MR. ANDRÉ LEROY, member of the principal Horticultural and Agricultural Societies of Europe and America, and lately promoted by the French Emperor to the rank of Knight of the Legion of Honor for the best nursery products exhibited at the World's Fair, held in Paris, begs leave to inform his friends and the public that he has just published his New Catalogue for 1886, being more extensive and complete than that of any similar establishment on the continent. It contains the price, &c., of all the Fruit, Ornamental and Evergreen Trees, Shrubs, Roses, Camellias, Stocks, Seedlings, &c., &c., with the necessary information for importing the same. His experience in putting up orders for America, and the superior quality of his plants have been too well appreciated during a period of ten years to require further comment. The Catalogue can be obtained free of charge on application to the undersigned Agent, who will also receive and forward the orders. Mr. A. Leroy is happy to state that his Nurseries were not reached by the inundation which so recently devastated a portion of the district in which they are situated.

Oct 21

ANDRÉ LEROY, Angers.
F. A. BRUGUIERE, Sole Agent,
137, Pearl Street, New York.

TO INVALIDS

LABORING UNDER AFFECTIONS OF THE
THROAT OR LUNGS.

DR. CALVIN M. FITCH;

Formerly of 714 Broadway, N. Y., author of the invalid's Guide, Consumptive's Manual, &c., having recently returned from Europe, would inform his patients at the west, and all interested in the announcement, that he will open on the 1st day of July,

PERMANENT OFFICE

At No. 459 Main Street, Buffalo, N. Y. where he may be consulted daily, (Sabbath excepted) from nine to five, for THROAT AND PULMONARY DISEASES, more particularly CONSUMPTION, ASTHMA AND CHRONIC BRONCHITIS, in the treatment of which a judicious combination of Remedial measures, the employment of Mechanical and Constitutional Remedies, and of Medicinal and Pathotropic Inhalations, give him a degree of success which can never attend a merely partial treatment of these Affections. DR. FITCH may also be consulted for all derangements of the system proceeding, or giving rise to Pulmonary Diseases, particularly CATARRH, DYSPNEA, COSTIVENESS, AND FECALE COMPLAINTS. Persons wishing to consult, but unable to visit Dr. FITCH, can do so by sending him a written statement of their case. A personal examination is however always preferable, as important symptoms are sometimes overlooked by the patient; and also as constant practice in consultation enables Dr. FITCH to determine the condition of the Lungs with great accuracy; thus of course enabling him more successfully to modify and adapt treatment to individual cases.

CONSULTATIONS FREE.

Dr. C. M. FITCH has associated with himself in practice Dr. J. W. SYKES, for a long time his assistant, a gentleman in whose professional ability he has the highest confidence; and he furthermore wishes it distinctly understood that he has no longer any professional connection with Dr. S. S. Fitch, but that communications will hereafter be addressed to

July, '86, 1 year

CALVIN M. FITCH, M.D.,
459 Main street, Buffalo, N. Y.

HICKOK'S CIDER MILL.

A Entire new, enlarged and improved machine.
Price \$40.
Sept 23

D. O. & W. S. PENFIELD.

SEYMOUR'S GRAIN DRILLS and Broad Cast Sowers.
Sept 21

D. O. & W. S. PENFIELD.

PROSPECTUS FOR 1887.

THE SATURDAY EVENING POST.

ESTABLISHED AUGUST 4th, 1821.

THE PUBLISHERS of this old and firmly established paper takes pleasure in calling the attention of the public to their programme for the coming year. Satisfied with politics, the claims of literature will be more than ever appreciated by the reading world. We have therefore already made arrangements with the following brilliant list of writers:—

WILLIAM HOWITT (of England,) ALICE CAREY, T. S. ARTHUR, MRS. SOUTHWORTH, AUGUSTINE DUGANNE, MRS. M. A. DENISON, the author of, "ZILLAH," &c.

We design commencing, in the first number in January next, the following original Novel:—

Tallangetta, or the Squatters' Home.

By William Howitt, author of "Rural Life in England," "Homes of the Poets," &c. &c.

This is a STORY OF AUSTRALIAN LIFE, Mr. Howitt having visited Australia, expressly with the object of acquainting himself with the novel and romantic aspects under which nature and society present themselves in that singular region.

The following Novels will then be given, though probably not in the exact order here mentioned:—

THE STORY OF A COUNTRY GIRL.

By Alice Carey. An original Novelet, written expressly for the Post.

THE WITHERED HEART.

An original Novelet, written expressly for the Post, by T. S. ARTHUR.

LIGHTHOUSE ISLAND.

An original Novelet, by the author of "My Confession," "Zillah, or the Child Medium," &c.

THE QUAKER'S PROTEGE.

An original Novelet, by Mrs. Mary A. Denison, author of "Mark, the Sexton," "Home Pictures," &c.

THE RAID OF BURGUNDY.

A TALE OF THE SWISS CANTONS. An original Novelet, by Augustine Duganne, author of "He Lost of the Wilderness," &c. We have also the promise of a short and Condensed

NOVELET, BY MRS. SOUTHWORTH,

to run through about six or eight numbers of the Post.

In addition to the above list of contributions, we design continuing the usual amount of Foreign Letters, Original Sketches, Choice Selections, from all sources, Agricultural Articles, General News, Numerous Anecdotes, View of the Produce and Stock Markets, The Philadelphia Retail Markets, Bank Note List, Editorials, &c. &c., our object being to give a complete Record, as far as our limits will admit, of the Great World.

Engravings.—In the way of Engravings we generally present two weekly—one of an instructive, and the other of a humorous character.

The Postage on the Post to any part of the United States, paid quarterly or yearly in advance, at the office where it is received, is only 25 cents a year.

TERMS.—(Cash in advance)—Single copy \$2 a year.

4 copies	\$5 00 a year.
8 "	(And one to the getter up of the Club.)	10 00 "
12 "	(And one to the getter up of the Club.)	15 00 "
20 "	(And one to the getter up of the Club.)	20 00 "

Address, always post-paid,

DEACON & PETERSON,
No. 66 South Third Street, Philadelphia.

SAMPLE NUMBERS, sent gratis to any one, when requested TO EDITORS.—Editors who give the above one insertion, or condense the material portions of it, (the notices of new contributions and our terms) for their editorial columns, shall be entitled to an exchange by sending a marked copy of the paper containing the advertisement or notice. Dec-1852-21

